

# **Component-Level Information Packet**

## **General CLIP Information**



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Thanks

Dave & Lynn Henderson  
Artek Media

# HP 8590 Series Analyzers

## Component-Level Information

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HP Part Number 5963-2951

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## **General CLIP Information**

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Component-Level Information Packets (CLIPs) provide information for selected, repairable instrument assemblies. Each CLIP contains a parts list, component-location diagram, and schematic diagram. Each CLIP has an HP part number, which is changed whenever the HP part number for its related instrument assembly is changed.

Updated or replacement CLIPs may be ordered through your local Hewlett-Packard Sales or Service office. Use the CLIP part number provided in Table A-1 of the Service Manual for the instrument documented by this CLIP set.

The information included in this “General CLIP Information” packet is listed below.

- Table 1 provides a guide to reference designations, abbreviations, and multipliers used in the “Description” column of the parts lists.
- Table 2 lists manufacturer codes used in the “Mfr Code” column of the parts lists, along with the names of the manufacturers they represent.
- Figure 1 provides a guide to graphics symbols used on schematic and block diagrams.
- Foldout 1 is an illustration of the general layout of schematic and block diagrams.

**Table 1. Reference Designations, Abbreviations, and Multipliers (1 of 4)**

REFERENCE DESIGNATIONS					
A	Assembly	F	Fuse	RT	Thermistor
AT	Attenuator, Isolator, Limiter, Termination	FL	Filter	S	Switch
B	Fan, Motor	HY	Circulator	T	Transformer
BT	Battery	J	Electrical Connector (Stationary Portion), Jack	TB	Terminal Board
C	Capacitor	K	Relay	TC	Thermocouple
CP	Coupler	L	Coil, Inductor	TP	Test Point
CR	Diode, Diode Thyristor, Step Recovery Diode, Varactor	M	Meter	U	Integrated Circuit, Microcircuit
DC	Directional Coupler	MP	Miscellaneous Mechanical Part	V	Electron Tube
DL	Delay Line	P	Electrical Connector (Movable Portion), Plug	VR	Breakdown Diode (Zener), Voltage Regulator
DS	Annunciator, Lamp, Light Emitting Diode (LED), Signaling Device (Visible)	Q	Silicon Controlled Rectifier (SCR), Transistor, Triode Thyristor	W	Cable, Wire, Jumper
E	Miscellaneous Electrical Part	R	Resistor	X	Socket
				Y	Crystal Unit (Piezoelectric, Quartz)
				Z	Tuned Cavity, Tuned Circuit
ABBREVIATIONS					
<b>A</b>		BSC	Basic	CNDCT	Conducting, Conductive, Conductivity, Conductor
A	Across Flats, Acrylic, Air (Dry Method), Ampere	BTN	Button		
ADJ	Adjust, Adjustment	<b>C</b>		CONT	Contact, Continuous, Control, Controller
ANSI	American National Standards Institute (formerly USASI-ASA)	C	Capacitance, Capacitor, Center Tapped, Cermet, Cold, Compression	CONV	Converter
ASSY	Assembly	CCP	Carbon Composition Plastic	CPRSN	Compression
AWG	American Wire Gage	CD	Cadmium, Card, Cord	CUP-PT	Cup Point
<b>B</b>		CER	Ceramic	CW	Clockwise, Continuous Wave
BCD	Binary Coded Decimal	CHAM	Chamfer	<b>D</b>	
BD	Board, Bundle	CHAR	Character, Characteristic, Charcoal	D	Deep, Depletion, Depth, Diameter, Direct Current
BE-CU	Beryllium Copper	CMOS	Complementary Metal Oxide Semiconductor	DA	Darlington
BNC	Type of Connector				
BRG	Bearing, Boring				
BRS	Brass				

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Table 1. Reference Designations, Abbreviations, and Multipliers (2 of 4)

ABBREVIATIONS					
DAP-GL	Diallyl Phthalate Glass	FT	Current Gain Bandwidth Product (Transition Frequency), Feet, Foot	JFET	Junction Field Effect Transistor
DBL	Double				
DCDR	Decoder				<b>K</b>
DEG	Degree				
D-HOLE	D-Shaped Hole	FXD	Fixed	K	Kelvin, Key, Kilo, Potassium
DIA	Diameter				
DIP	Dual In-Line Package		<b>G</b>	KNRLD	Knurled
DIP-SLDR	Dip Solder			KVDC	Kilovolts
D-MODE	Depletion Mode	GEN	General, Generator		Direct Current
DO	Package Type Designation	GND	Ground		
DP	Deep, Depth, Dia- metric Pitch, Dip	GP	General Purpose, Group		<b>L</b>
DP3T	Double Pole Three Throw		<b>H</b>	LED	Light Emitting Diode
DPDT	Double Pole Double Throw	H	Henry, High	LG	Length, Long
DWL	Dowell	HDW	Hardware	LIN	Linear, Linearity
	<b>E</b>	HEX	Hexadecimal, Hexagon, Hexagonal	LK	Link, Lock
E-R	E-Ring	HLCL	Helical	LKG	Leakage, Locking
EXT	Extended, Extension, External, Extinguish	HP	Hewlett-Packard Company, High Pass	LUM	Luminous
	<b>F</b>		<b>I</b>		<b>M</b>
F	Fahrenheit, Farad, Female, Film (Resistor), Fixed, Flange, Frequency	IC	Collector Current, Integrated Circuit	M	Male, Maximum, Mega, Mil, Milli, Mode
FC	Carbon Film/ Composition, Edge of Cutoff Frequency, Face	ID	Identification, Inside Diameter	MA	Milliampere
FDTHRU	Feedthrough	IF	Forward Current, Intermediate Frequency	MACH	Machined
FEM	Female	IN	Inch	MAX	Maximum
FIL-HD	Fillister Head	INCL	Including	MC	Molded Carbon Composition
FL	Flash, Flat, Fluid	INT	Integral, Intensity, Internal	MET	Metal, Metallized
FLAT-PT	Flat Point		<b>J</b>	MHZ	Megahertz
FR	Front			MINTR	Miniature
FREQ	Frequency	J-FET	Junction Field Effect Transistor	MIT	Miter
				MLD	Mold, Molded
				MM	Magnetized Material, Millimeter
				MOM	Momentary
				MTG	Mounting
				MTLC	Metallic
				MW	Milliwatt

**Table 1. Reference Designations, Abbreviations, and Multipliers (3 of 4)**

ABBREVIATIONS			
	<b>N</b>	PLSTC Plastic	SMA Subminiature, A Type (Threaded Connector)
N	Nano, None	PNL Panel	
N-CHAN	N-Channel	PNP Positive Negative Positive (Transistor)	SMB Subminiature, B Type (Slip-on Connector)
NH	Nanohenry	POLYC Polycarbonate	SMC Subminiature, C-Type (Threaded Connector)
NM	Nanometer, Nonmetallic	POLYE Polyester	
NO	Normally Open, Number	POT Potentiometer	
NOM	Nominal	POZI Pozidriv Recess	
NPN	Negative Positive Negative (Transistor)	PREC Precision	SPCG Spacing
NS	Nanosecond, Non-Shorting, Nose	PRP Purple, Purpose	SPDT Single Pole Double Throw
NUM	Numeric	PSTN Piston	SPST Single Pole Single Throw
NYL	Nylon (Polyamide)	PT Part, Point, Pulse Time	SQ Square
	<b>O</b>	PW Pulse Width	SST Stainless Steel
			STL Steel
		<b>Q</b>	SUBMIN Subminiature
OA	Over-All	Q Figure of Merit	SZ Size
OD	Outside Diameter		
OP AMP	Operational Amplifier	<b>R</b>	<b>T</b>
OPT	Optical, Option, Optional	R Range, Red, Resistance, Resistor, Right, Ring	T Teeth, Temperature, Thickness, Time, Timed, Tooth, Typical
	<b>P</b>	REF Reference	TA Ambient Temperature, Tantalum
PA	Picoampere, Power Amplifier	RES Resistance, Resistor	TC Temperature Coefficient
PAN-HD	Pan Head	RF Radio Frequency	THD Thread, Threaded
PAR	Parallel, Parity	RGD Rigid	THK Thick
PB	Lead (Metal), Pushbutton	RND Round	TO Package Type Designation
PC	Printed Circuit	RR Rear	TPG Tapping
PCB	Printed Circuit Board	RVT Rivet, Riveted	TR-HD Truss Head
P-CHAN	P-Channel	<b>S</b>	TRMR Trimmer
PD	Pad, Power Dissipation	SAWR Surface Acoustic Wave Resonator	TRN Turn, Turns
PF	Picofarad, Power Factor	SEG Segment	TRSN Torsion
PKG	Package	SGL Single	
		SI Silicon, Square Inch	
		SL Slide, Slow	
		SLT Slot, Slotted	

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**Table 1. Reference Designations, Abbreviations, and Multipliers (4 of 4)**

ABBREVIATIONS					
	<b>U</b>		VAR Variable		<b>Y</b>
			VDC Volts—Direct Current		
UCD	Microcandela				YIG Yttrium-Iron-Garnet
UF	Microfarad				
UH	Microhenry		<b>W</b>		
UL	Microliter, Underwriters' Laboratories, Inc.		W Watt, Wattage, White, Wide, Width		<b>Z</b>
UNHDND	Unhardened		W/SW With Switch		ZNR Zener
			WW Wire Wound		
	<b>V</b>				
V	Variable, Violet, Volt, Voltage		<b>X</b>		
VAC	Vacuum, Volts— Alternating Current		X By (Used with Dimensions), Reactance		

MULTIPLIERS					
Abbreviation	Prefix	Multiple	Abbreviation	Prefix	Multiple
T	tera	10 <sup>12</sup>	m	milli	10 <sup>-3</sup>
G	giga	10 <sup>9</sup>	μ	micro	10 <sup>-6</sup>
M	mega	10 <sup>6</sup>	n	nano	10 <sup>-9</sup>
k	kilo	10 <sup>3</sup>	p	pico	10 <sup>-12</sup>
da	deka	10 <sup>2</sup>	f	femto	10 <sup>-15</sup>
d	deci	10 <sup>-1</sup>	a	atto	10 <sup>-18</sup>
c	centi	10 <sup>-2</sup>			

**Table 2. Manufacturers Code List**

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
00039	NEC ELECTRONICS INC	MTN VIEW, CA	US	94043
00046	UNITRODE CORP	LEXINGTON, MA	US	02173
00075	ARIZONA COIL INC	NOGALES, AZ	US	85621
00273	STILLWATER MFG CO	EAST FREEDOM, MA	US	02717
00278	MCCOY ELECTRONICS CO	HOLLY SPRINGS, PA	US	17065
00350	EXAR INTEGRATED SYSTEMS INC	SUNNYVALE, CA	US	94086
00466	NORELCO NORTH AMER PHILIPS LTG CORP	LOS ANGELES, CA	US	90021
00493	UNITED CHEMI-CON INC	COMPTON, CA	US	90220
00746	ROHM CORP	IRVINE, CA	US	92713
00779	NICHICON (AMERICA) CORP	SCHAUMBERG, IL	US	60195
00830	KYOCERA INTERNATIONAL INC	SAN DIEGO, CA	US	
00901	UNION CARBIDE CORP	DANBURY, CT	US	06810
01064	SCHAAL BROS INC	BERTHOUD, CO	US	80513
01074	HOLSWORTHY ELECTRONICS LTD	HOLSWORTHY	EG	
01128	RES-NET CORP	WHIPPANY, NJ	US	07981
01131	WESTERN THERMISTOR CORP	OCEANSIDE, CA	US	92054
01136	ELCO INDUSTRIES INC	ROCKFORD, IL	US	61125
01172	R C D COMPONENTS INC	BEDFORD, NH	US	03102
01185	MAGNET WIRE CORP	NEW YORK, NY	US	10013
01230	AEROVOX CORP	NEW BEDFORD, MA	US	02741
01250	GTE SYLVANIA ELEK COMPONENTS GROUP	WALTHAM, MA	US	02154
01339	GETTIG ENGRG & MFG CO INC	SPRING MILLS, PA	US	16875
01380	AMP INC	HARRISBURG, PA	US	17111
01409	CROVEN CRYSTALS	WHITBY	CN	L1N 5
01417	NEL FREQUENCY CONTROLS INC	BURLINGTON, WI	US	53105
01452	SANGAMO WESTON INC	NORCROSS, GA	US	30071
01461	GOE ENGINEERING CO INC	ONTARIO, CA	US	91761
01468	STETTNER & CO	LAUF	GM	D-856
01478	BOYD CORP	PLEASANTON, CA	US	94566
01542	HP DIV 01 SAN JOSE COMPONENTS	SAN JOSE, CA	US	95131
01590	PLESSEY SEMICONDUCTORS	SANTA ANA, CA	US	92705
01607	ALLEN-BRADLEY CO INC	EL PASO, TX	US	79935
01688	MURATA CORPORATION OF AMERICA	MARIETTA, GA	US	30067
01691	TRW INC SEMICONDUCTOR DIV	LAWNDALE, CA	US	90260
01698	TEXAS INSTRUMENTS INC	DALLAS, TX	US	75265
01708	JUBULATION	SANTA CRUZ, CA	US	95060
01736	ALLIED ELECTRONICS CORP	CHICAGO, IL	US	60612
01760	MATSUO ELECTRONICS OF AMERICA	HUNTINGTON BEACH, CA	US	90245
01795	SYNERTEK	SANTA CLARA, CA	US	95051
01850	AROMAT CORP	MOUNTAINSIDE, NJ	US	07092
01854	RCL ELECTRONICS INC	NORTHBROOK, IL	US	60062
01869	PULSE ENGINEERING INC	SAN DIEGO, CA	US	92111
01876	HP DIV 02 SCD IC'S	SANTA CLARA, CA	US	95050
01885	HAMILTON STANDARD CONTROLS INC	WINDWOR LOCKS, CT	US	06096
01886	COILCRAFT INC	CARY, IL	US	60013
01887	FERROXCUBE CORP	SAUGERTIES, NY	US	12477

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Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
01898	HI-G CO INC	HARTFORD, CT	US	06114
01916	BUNKER RAMO CORP AMPHENOL CONN DIV	BROADVILLE, IL	US	60153
01921	RCA CORP	NEW YORK, NY	US	10112
01923	NYLOGRIP PRODUCTS	WALTHAM, MA	US	02154
01924	ITW FASTEX	DES PLAINES, IL	US	60016
01939	ELPAC INC COMPONENTS DIV	IRVINE, CA	US	92664
01943	HP DIV 04 SPD CABLES 64	PALO ALTO, CA	US	94304
01953	HP DIV 04 SPD MOLDING 91	PALO ALTO, CA	US	94304
01973	GE CO SEMICONDUCTOR PROD DEPT	AUBURN, NY	US	13201
01991	TRANSITRON ELECTRONIC CORP	WAKEFIELD, MA	US	01880
01992	KDI PYROFILM CORP	WHIPPANY, NJ	US	07981
01993	MARKEL CORP	NORRISTOWN, PA	US	19404
02010	AVX CORP	GREAT NECK, NY	US	11021
02030	NATIONAL WIRE & CABLE CO INC	LOS ANGELES, CA	US	90031
02037	MOTOROLA INC	ROSELLE, IL	US	60195
02038	UNICORP	ORANGE, NJ	US	07050
02062	HP DIV 05 MSD	SAN JOSE, CA	US	94304
02086	WESTINGHOUSE ELEC CORP SEMICON DEPT	YOUNGWOOD, PA	US	15697
02091	ULTRONIX INC	GRAND JUNCTION, CO	US	81501
02123	EG & G INC	WELLESLEY, MA	US	02181
02139	MEPCO/ELECTRA INC	MORRISTOWN, NJ	US	07960
02145	RAYCHEM CORP	MENLO PARK, CA	US	94025
02160	PANDUIT CORP	TINLEY PARK, IL	US	60477
02170	AMATOM ELEK HARDWARE DIV OF MITE	NEW ROCHELLE, NY	US	06515
02172	JEFFERS ELECTRONICS INC	NOGALES, AZ	US	85621
02180	PRECISION MONOLITHICS INC	SANTA CLARA, CA	US	95054
02191	CORNING COMPONENTS INC	CORNING, NY	US	14830
02194	ROBINSON NUGENT INC	NEW ALBANY, IN	US	47150
02210	MILTON ROSS CO	SOUTHAMPTON, PA	US	18966
02215	KELVIN ELECTRIC CO	VAN NUYS, CA	US	91401
02236	SILICON TRANSISTOR CORP	CHELMSFORD, MA	US	11530
02237	FAIRCHILD SEMICONDUCTOR CORP	CUPERTINO, CA	US	95014
02273	TRW INC BURLINGTON DIV	BURLINGTON, IA	US	52601
02290	RAYTHEON CO SEMICONDUCTOR DIV HQ	MOUNTAIN VIEW, CA	US	94040
02296	HP DIV 08 COLO SPRGS	COLORADO SPRGS, CO	US	80907
02344	GE CO MINIATURE LAMP PROD DEPT	CLEVELAND, OH	US	44112
02362	HP DIV 09 LID COMPONENTS	LOVELAND, CO	US	80537
02363	HP DIV C5 COLORADO IC	FT COLLINS, CO	US	80525
02366	KOA SPEER ELECTRONICS INC	BRADFORD, PA	US	16701
02367	CORNELL-DUBILIER/SANGAMO	WAYNE, NJ	US	07470
02379	TEXAS CAPACITOR CO INC	HOUSTON, TX	US	77036
02392	C & K COMPONENTS INC	NEWTON, MA	US	02158
02408	DIXON INDUSTRIES CORPORATION	BRISTOL, RI	US	02809
02414	BURNDY CORP	NORWALK, CT	US	06856
02415	DALE ELECTRONICS INC	YANKTON, SD	US	57078
02440	THOMPSON BREMER DIV VARE	CHICAGO, IL	US	60622

**Table 2. Manufacturers Code List (continued)**

<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
02465	ANILLO INDUSTRIES INC	ORANGE, CA	US	92667
02483	CTS CORP	ELKHART, IN	US	46514
02484	CTS CORP PASO ROBLES	PASO ROBLES, CA	US	93446
02499	IRC INC	BOONE, NC	US	28607
02501	TELEDYNE INDUSTRIES INC	LOS ANGELES, CA	US	90067
02556	MONTROSE PRODUCTS CO	AUBURN, MA	US	01501
02567	OMTRONICS MFG INC	OMAHA, NE	US	68105
02569	CRYSTALONICS, DIV TELEDYNE	CAMBRIDGE, MA	US	02140
02572	TELEDYNE THERMATICS	ELM CITY, NC	US	27822
02574	RLC ELECTRONICS INS	MT KISCO, NY	US	10549
02577	HAMLIN INC	LAKE MILLS, WI	US	53551
02582	CLAROSTAT MFG CO INC	DOVER, NH	US	03820
02598	UNITRODE CORP	WATERTOWN, MA	US	02172
02603	NATIONAL WIRE & STAMPING INC	ENGLEWOOD, CO	US	80110
02608	THERMALLOY INC	DALLAS, TX	US	75234
02619	SOLITRON DEVICES INC (DIODES)	TAPPAN, NY	US	10983
02634	SPRAGUE ELECTRIC SEMICON DIV	CONCORD, NH	US	03301
02664	SEMTECH CORP	NEWBURY PARK, CA	US	91320
02668	EDISON ELEK DIV MCGRAW-EDISON	MANCHESTER, NH	US	03130
02675	AMERICAN COMPONENTS INC	CONSHOHOCKEN, PA	US	19428
02682	ITT SEMICONDUCTORS DIV	TUSTIN, CA	US	92680
02685	LOBAUGH ROLLIN J	SOUTH SAN FRANC, CA	US	94080
02686	WATKINS-JOHNSON CO	PALO ALTO, CA	US	94304
02688	MICROSEMI CORP	SCOTSDALE, AZ	US	85252
02696	CORNING GLASS WORKS ELEK PROD DIV	CORNING, NY	US	14830
02706	WARD LEONARD HAGERSTOWN DIV	HAGERSTOWN, MD	US	21740
02713	GENERAL INSTRUMENT CORP (DIODE)	HICKSVILLE, NY	US	11802
02718	VALOR ELECTRONICS INC	SANTA ANA, CA	US	92705
02734	AMETEK INC RODAN DIV	ANAHEIM, CA	US	92806
02739	MINI-CIRCUITS LAB	BROOKLYN, NY	US	11235
02744	ELEC-TROL INC	SAUGUS, CA	US	91350
02761	FENWAL ELECTRONICS INC	SADDLE BROOK, NJ	US	07662
02763	TELEDYNE SEMICONDUCTOR	MOUNTAIN VIEW, CA	US	94043
02771	ANSLEY ELECTRIC	LOS ANGELES, CA	US	90032
02788	M/A-COM INC	BURLINGTON, MA	US	01803
02798	CORNING ELECTRONICS	RALEIGH, NC	US	27604
02803	CODI SEMICONDUCTOR	LINDEN, NJ	US	07410
02805	COOPER INDUSTRIES INC	HOUSTON, TX	US	77210
02813	U S CAPACITOR CORP	BURBANK, CA	US	91504
02826	DENNISON MFG CO	FRAMINGHAM, MA	US	01701
02856	MOHAWK SPRING CO INC	ARLINGTON HEIGH, IL	US	60008
02865	ALPHA INDUSTRIES INC	WOBURN, MA	US	01801
02877	ANGSTROHM PRECISION INC	VAN NUYS, CA	US	91405
02883	SILICONIX INC	SANTA CLARA, CA	US	95054
02910	SIGNETICS CORP	SUNNYVALE, CA	US	94086
02923	CHOMERICS INC	WOBURN, MA	US	01801

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Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
02928	VISHAY INTERTECHNOLOGY INC	MALVERN, PA	US	19355
02937	VOLTRONICS CORP	HANOVER, NJ	US	07936
02946	DUPONT E I DE NEMOURS & CO	WILMINGTON, DE	US	19801
02995	MEPCO/CENTRALAB INC	RIVIERA, FL	US	33404
03038	INTL RECTIFIER CORP	LOS ANGELES, CA	US	90069
03122	EMCON DIV ITW	SAN DIEGO, CA	US	92129
03123	MICRO-OHM CORP	EL TORO, CA	US	92630
03171	SOLITRON DEVICES INC	PALM BEACH, FL	US	33404
03172	TRW MICROWAVE	SUNNYVALE, CA	US	94086
03174	ANZAC ELEK DIV ADAMS-RUSSEL CO INC	WALTHAM, MA	US	02154
03206	DUPONT CONNECTOR SYSTEMS	CAMP HILL, PA	US	17011
03232	PRODUCT COMPONENT CORP	MT VERNON, NY	US	10553
03239	WAVETEK	SAN DIEGO, CA	US	92111
03257	M-TRON INDUSTRIES INC	YANKTON, SD	US	57078
03259	STANFORD APPLIED ENGINEERING	SANTA CLARA, CA	US	95054
03263	ELECTRONIZED CHEMICALS CORP	BURLINGTON, MA	US	01803
03273	GOWANDA ELECTRONICS CORP	GOWANDA, NY	US	14070
03282	GENERAL CABLE CORP	NEW YORK, NY	US	10017
03285	ANALOG DEVICES INC	NORWOOD, MA	US	02062
03291	AVANTEK INC	SANTA CLARA, CA	US	95054
03292	CORNING GLASS WORKS	CORNING, NY	US	14830
03297	EMC TECHNOLOGY INC	CHERRY HILL, NJ	US	08034
03316	SPECIALTY CONNECTOR CO	FRANKLIN, IN	US	46131
03317	AEG-TELEFUNKEN CORP	ENGLEWOOD, NJ	US	07632
03334	NV PHILIPS ELCOMA	EINDHOVEN	NE	02876
03352	SWISS AUTOMATICS INC	COLUMBUS, NE	US	68601
03371	USM CORP NYLOK FASTENER DIV	TORRANCE, CA	US	90501
03380	GRIES/DYNACAST CO DIV COATES-CLARK	NEW ROCHELLE, NY	US	10802
03389	VARADYNE INC	SANTA MONICA, CA	US	90404
03394	METHODE ELECTRONICS INC	CHICAGO, IL	US	60656
03395	MEPCO/CENTRALAB INC	WEST PALM BEACH, FL	US	33407
03406	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA, CA	US	95052
03412	CORNING GLASS WORKS (WILMINGTON)	WILMINGTON, NC	US	28401
03418	MOLEX INC	LISLE, IL	US	60532
03428	NONOTUCK MFG CO	HADLEY FALLS, MA	US	01075
03441	F-DYNE ELECTRONICS CO	BRIDGEPORT, CT	US	06605
03521	JOHANSON DIELECTRICS INC	BURBANK, CA	US	91510
03530	STACKPOLE COMPONENT CO	RALEIGH, NC	US	27620
03545	TELEDYNE PHILBRICK NEXUS	DEDHAM, MA	US	02026
03594	CARTER SEMICONDUCTORS	LOWELL, MA	US	01850
03621	M/A-COM CABLEWAVE MINI PROD	BURLINGTON, MA	US	01803
03627	SOLID STATE DEVICES INC	LA MIRADA, CA	US	90638
03647	INSTRUMENT SPECIALTIES CO INC	DEL WATER GAP, PA	US	07424
03651	MEPCO/ELECTRA CORP	SAN DIEGO, CA	US	92121
03658	ALPHA IND MICROELECTRONICS DIVISION	COLMAR, PA	US	18915
03706	WEST-CAP ARIZONA	SAN FERNANDO, CA	US	91340

**Table 2. Manufacturers Code List (continued)**

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
03714	INTERSIL INC	CUPERTINO, CA	CA	95014
03724	BIVAR INC	SANTA ANA, CA	US	92705
03740	ERIE TECH PROD INC ERIE FREQ CONT	CARLISLE, PA	US	17013
03744	BOURNS INC	RIVERSIDE, CA	US	92507
03746	SPECTRUM CONTROL INC	ERIE, PA	US	16505
03747	COLORADO CRYSTAL CORP	LOVELAND, CO	US	80537
03762	TELE-TECH CORP	BOZEMAN, MT	US	59771
03793	SILICON GENERAL INC	SAN JOSE, CA	US	95134
03794	ADVANCED MICRO DEVICES INC	SUNNYVALE, CA	US	94086
03795	MOTOROLA INC	FRANKLIN PARK, IL	US	60131
03799	HARRIS CORP	MELBOURNE, FL	US	32901
03811	INTEL CORP	SANTA CLARA, CA	US	95054
03827	FAIR RITE PRODUCTS CORP	WALLKILL, NY	US	12589
03849	MICROSYSTEMS INTERNATIONAL LTD	OTTAWA	CN	
03910	GENERAL ELECTRIC CO	PHILADELPHIA, PA	US	19124
03923	SIEMENS CORP	ISELIN, NJ	US	08830
03938	MIDLAND-ROSS CORP	CLEVELAND, OH	US	44113
03972	OHMITE MFG CO	SKOKIE, IL	US	60076
03973	HP DIV 45 NMD	SANTA ROSA, CA	US	95401
04068	LABINAL COMPONENTS & SYSTEMS INC	ELK GROVE VILLA, IL	US	60007
04078	SGS-THOMSON MICROELECTRONICS INC	PHOENIX, AZ	US	85022
04092	MONOLITHIC MEMORIES INC	SANTA CLARA, CA	US	95054
04121	SEMICONDUCTOR CIRCUITS INC	HAVERHILL, MA	US	01830
04150	VICLAN INC	SAN DIEGO, CA	US	92138
04169	SANGAMO ELECTRIC CO	SPRINGFIELD, IL	US	62702
04181	AHAM-TOR	RANCHO, CA	US	91702
04182	SHALLCROSS INC	NORTHBROK, IL	US	60062
04200	SPRAGUE ELECTRIC CO	LEXINGTON, MA	US	02173
04204	SPS TECHNOLOGIES	NEWTOWN, PA	US	18940
04213	STIMPSON EDWIN B CO INC	BROOKLYN, NY	US	11705
04225	THOMAS & BETTS CORP	RARITAN, NJ	US	08869
04234	DELBERT BLINN CO	POMONA, CA	US	91766
04261	INSULECTRO CORP	BURLINGAME, CA	US	94010
04314	VLN CORP VICTOREEN INSTRUMENT DIV	CLEVELAND, OH	US	44103
04379	AMETEK INC	PAOLI, PA	US	19301
04393	CENTRE ENGINEERING INC	STATE COLLEGE, PA	US	16801
04418	ALLEN MFG CO	HARTFORD, CT	US	06101
04423	G.E. CERAMICS, INC.	CHATTANOOGA, TN	US	37405
04458	BLILEY ELECTRIC CO	ERIE, PA	US	16508
04464	BRAND REX CO	WILLIMANTIC, CT	US	06226
04475	CAMBRIDGE THERMIONIC CORP	CAMBRIDGE, MA	US	02138
04486	ITT CORP	NEW YORK, NY	US	10022
04492	CENTRALAB INC	MILWAUKEE, WI	US	53209
04504	GENERAL INSTRUMENT CORP	CLIFTON, NJ	US	07012
04507	TRW INC	CLEVELAND, OH	US	44124
04514	DOW CORNING CORP	MIDLAND, MI	US	48641

Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
04522	ELECTRO MOTIVE CORP	FLORENCE, SC	US	06226
04550	GENERAL ELECTRIC CO	FAIRFIELD, CT	US	06430
04563	ERIE TECHNOLOGICAL PRODUCTS INC	ERIE, PA	US	16512
04564	ESSEX INTERNATIONAL INC	FORT WAYNE, IN	US	46804
04567	ITT HARPER DIV	CHICAGO, IL	US	60606
04568	BECKMAN INDUSTRIAL CORP	FULLERTON, CA	US	92635
04581	BARWOOD MFG CORP	EVERETT, MA	US	02149
04605	FISCHER SPECIAL MFG CO	CINCINNATI, OH	US	45206
04615	J F D ELECTRONICS CORP	BROOKLYN, NY	US	11219
04645	SIGNALITE DIV GENERAL INST CORP	NEPTUNE, NJ	US	07753
04648	PIEZO CRYSTAL CO	CARLSILE, PA	US	17013
04670	EF JOHNSON CO	WASECA, MN	US	56093
04672	TRW INC PHILADELPHIA DIV	PHILADELPHIA, PA	US	19108
04703	LITTELFUSE INC	DES PLAINES, IL	US	60016
04719	MARWEDEL C W	SAN FRANCISCO, CA	US	94103
04726	3M CO	ST PAUL, MN	US	55144
04733	BELL INDUSTRIES INC MILLER JW DIV	COMPTON, CA	US	90224
04757	OAK SWITCH SYSTEMS INC	CRYSTAL LAKE, IL	US	60014
04776	POTTER & BRUMFIELD INC	PRINCETON, IN	US	47671
04805	ILLINOIS TOOL WORKS INC SHAKEPROOF	ELGIN, IL	US	60126
04821	TILLEY MFG CO	MORGAN HILL, CA	US	94070
04822	STACKPOLE CARBON CO	ST MARYS, PA	US	15857
04828	TINNERMAN PRODUCTS INC	CLEVELAND, OH	US	44101
04830	STEWART STAMPING CORP	YONKERS, NY	US	10704
04853	VARFLEX CORP	ROME, NY	US	13440
04880	ZIERICK MFG CO	MT KISCO, NY	US	10549
04935	MEPCO ELECTRA CORP	MORRISTOWN, NJ	US	07960
04939	SCHNITZER ALLOY PRODUCTS CO	ELIZABETH, NJ	US	07206
04977	ITT CORP COMPONENTS DIV	NEW YORK, NY	US	10022
04990	GRAYHILL INC	LA GRANGE, IL	US	60525
05016	MONITOR PRODUCTS CO INC	OCEANSIDE, CA	US	92054
05065	TEXAS INSTRUMENTS INC	ATTLEBORO, MA	US	02703
05088	VARO INC	GARLAND, TX	US	75046
05098	VICTORY ENGINEERING CORP	SPRINGFIELD, NJ	US	07081
05108	KULKA-SMITH INC	MANASQUAN, NJ	US	08736
05131	ELECTRONIC DEVICES INC	YONKERS, NY	US	10710
05160	VRN INTERNATIONAL	ST PETERSBURG, FL	US	33710
05176	AMERICAN SHIZUKI CORP	CANOGA PARK, CA	US	91304
05232	BRADY W H CO	MILWAUKEE, WI	US	53209
05293	PRECISION METAL PRODUCT CO	STONEHAM, MA	US	02180
05347	UNIMICA	NEW YORK, NY	US	10013
05350	WILMINGTON FIBRE SPECIALTY CO	NEW CASTLE, DE	US	19720
05364	LITTON PRECISION PROD INC	VAN NUYS, CA	US	91409
05368	FCP INC	OLATHE, KS	US	66062
05400	REESE J RAMSEY INC	NEW YORK, NY	US	10007
05436	BURR-BROWN CORP	TUCSON, AZ	US	85706

**Table 2. Manufacturers Code List (continued)**

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
05447	BERGQUIST CO	MINNEAPOLIS, MN	US	55420
05453	ICO-RALLY CORP	SUNNYVALE, CA	US	94303
05461	ITT HARPER INC	MORTON GROVE, IL	US	60053
05466	EMHART CORP	FARMINGTON, CT	US	06032
05507	MILLER DIAL & NAMEPLATE CO	EL MONTE, CA	US	91734
05518	AUGAT INC	MANSFIELD, MA	US	02048
05524	DALE ELECTRONICS INC	COLUMBUS, NE	US	68601
05535	KEYSTONE ELECTRONICS CORP	NEW YORK, NY	US	10012
05545	NATIONAL TEL TRONICS CORP	YONKERS, NY	US	10701
05559	ALPHA WIRE CORP	ELIZABETH, NJ	US	07207
05568	JACOBSON MFG CO INC	KENILWORTH, NJ	US	07033
05589	UNIFORM TUBES	COLLEGEVILLE, PA	US	19426
05623	CAMDEN WIRE CO INC	CAMDEN, NY	US	13316
05630	WESTON COMPONENTS	ARCHBALD, PA	US	18403
05648	MAGNECRAFT ELECTRIC CO	CHICAGO, IL	US	60630
05661	ALCO ELECTRONIC PRODUCTS INC	NORTH ANDOVER, MA	US	01845
05668	VITRAMON INC	MONROE, CT	US	06468
05683	WECKESSER CO INC	CHICAGO, IL	US	60641
05704	SAN FERNANDO ELECTRIC MFG CO	SAN FERNANDO, CA	US	91341
05742	P C A ELECTRONICS INC	SEPULVEDA, CA	US	91343
05768	MALCO-A MICRODOT CO	PASADENA, CA	US	91030
05769	ITT SEAELECTRO CORP	TRUMBULL, CT	US	06611
05792	INTL ELECTRONIC RESEARCH CORP	BURBANK, CA	US	91502
05809	MARSHALL IND CAPACITOR DIV	MONROVIA, CA	US	91016
05826	AMER PRCN IND INC DELEVAN DIV	AURORA, NY	US	14052
05879	AMPHENOL CORPORATION	DANBURY, CT	US	06810
05917	RIFA AB	STOCKHOLM	SW	S-163
05943	TEXAS INSTRUMENTS DEUTSCHLAND GMBH	FREISING	GM	8050
05946	VALVO GMBH	HAMBURG	GM	2000
05951	WICKMANN-WERKE A G	WITTEN-ANNEN	GM	5870
05959	MARQUARDT GMBH	RIETHEIM	GM	D-720
05967	VTM A/S	GLOSTRUP	DK	2080
05982	CELDUC CONSTR ELECTRIQUES DU CENTRE	SORBIERS	FR	42
05985	SESCOSEM	SAINT EGREVE	FR	75781
05992	EFCO COMPOSANTS	NANTERRE	FR	
05993	CORNING GLASS EUROPE SOVCOR	LE VESINET	FR	
06003	SESCOSEM (63)	PARIS	FR	75781
06032	STC/STANTEL	DEVON	EG	
06039	SEAELECTRO LTD	PORTSMOUTH	EG	
06058	BOURNS TRIMPOT LTD	MIDDLESEX	EG	
06118	ROEDERSTEIN/RESISTA GMBH	LANDSHUT	GM	8300
06121	SIEMENS AG	MUNICH	GM	8000
06127	WIMA	MANNHEIM	GM	6800
06252	AB ELEKTRONIK GMBH	SALZBURG	AU	A-501
06328	SCHURTER AG	LUZERN	SW	CH-60
06330	CONDENSATEURS FRIBOURG S A	FRIBOURG	SW	

Table 2. Manufacturers Code List (continued)

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
06337	PHILLIPS GLOEILAMPENFABRIEKEN N V	EINDHOVEN	HL	
06344	FUJITSU MICROELECTRONICS INC	SANTA CLARA, CA	US	95054
06347	HITACHI AMERICA LTD	SUNNYVALE, CA	US	94086
06352	TDK CORPORATION OF AMERICA	SKOKIE, IL	US	60076
06354	TOSHIBA CORP	TOKYO	JP	
06424	E-SIL COMPONENTS LTD	SUNDERLAND	EG	SR4 6
06501	BARBER & COLEMAN LTD	SALE CHES	EG	
06563	SIEMENS CORP COMPONENTS GROUP	SCOTTSDALE, AZ	US	85252
06650	AEG-TELEFUNKEN	HEILBRONN	GM	7100
06665	SAMTEC	NEW ALBANY, IN	US	47150
06784	MIDWEST COMPONENTS	MUSKEGON, MI	US	49443
06857	TRAK MICROWAVE CORP	TAMPA, FL	US	33614
06860	HUBER & SUHNER AG	HERISAU	SW	
06900	JUDD WIRE	BURLINGTON, MA	US	01803
06916	SONY CORP	TOYKO	JP	141
06951	TRW RESISTIVE PRODUCTS DIV	CORPUS CHRISTI, TX	US	78411
07041	R.A.F. ELECTRONIC HARDWARE INC	STRATFORD, CT	US	06497
07050	MICRO POWER SYSTEMS	SANTA CLARA, CA	US	95050
07158	EATON CORP	CLEVELAND, OH	US	44144
07179	AAVID ENGINEERING INC	LACONIA, NH	US	03247
07221	SUPERTEX INC	SUNNYVALE, CA	US	94086
07284	PAKTRON DIV ITW	VIENNA, VA	US	22180
07338	J K L COMPONENTS CORP	LOS ANGELES, CA	US	90064
07379	SAN-O INDUSTRIAL CORP	BOHEMIA LI, NY	US	11716
07398	BEL FUSE INC	JERSEY CITY, NJ	US	07302
07477	AMERICAN OIL & SUPPLY CO	NEWARK, NJ	US	07105
07766	LA RADIOTECHNIQUE COMPELEC	VILLEVRBANNE	FR	
07798	REMTEK CORP	SUNNYVALE, CA	US	
08097	SPRAGUE-GOODMAN ELECTRONICS	NEW HYDE PARK, NY	US	11040
08113	KAHGAN ELECTRONICS CORP	HEMPSTEAD, NY	US	11550
08123	COIL-Q CORP	BRONXVILLE, NY	US	
08259	DALE ELECTRONICS INC	TEMPE, AZ	US	85252
08261	STAR MICRONICS INC	NEW YORK, NY	US	
08335	SOURIAU INC	SAUGUS, CA	US	95203
08369	FILECA	STE GENEVIEVE	FR	
08560	OXLEY DEV LTD	CUMBRIA	EG	
08666	PANEL COMPONENTS CORP	SANTA ROSA, CA	US	
08709	PANASONIC INDUSTRIAL CO	SECAUCUS, NJ	US	07094
08778	MADISON CABLE CORP	WORCHESTER, MA	US	01603
08779	MITSUBISHI ELECTRONICS AMERICA	SUNNYVALE, CA	US	94086
08781	CATALYST RESEARCH CORP	BALTIMORE, MD	US	
08810	ROCKWELL INTERNATIONAL	ANAHEIM, CA	US	
08838	AND (ALPHA NUMERIC DISPLAYS)	BURLINGAME, CA	US	
08852	METELICS CORP	SUNNYVALE, CA	US	
09043	GLOW-LITE DIV OF DUTCH BOY	PAULS VALLEY, OK	US	
09050	XENELL	WYNNEWOOD, OK	US	

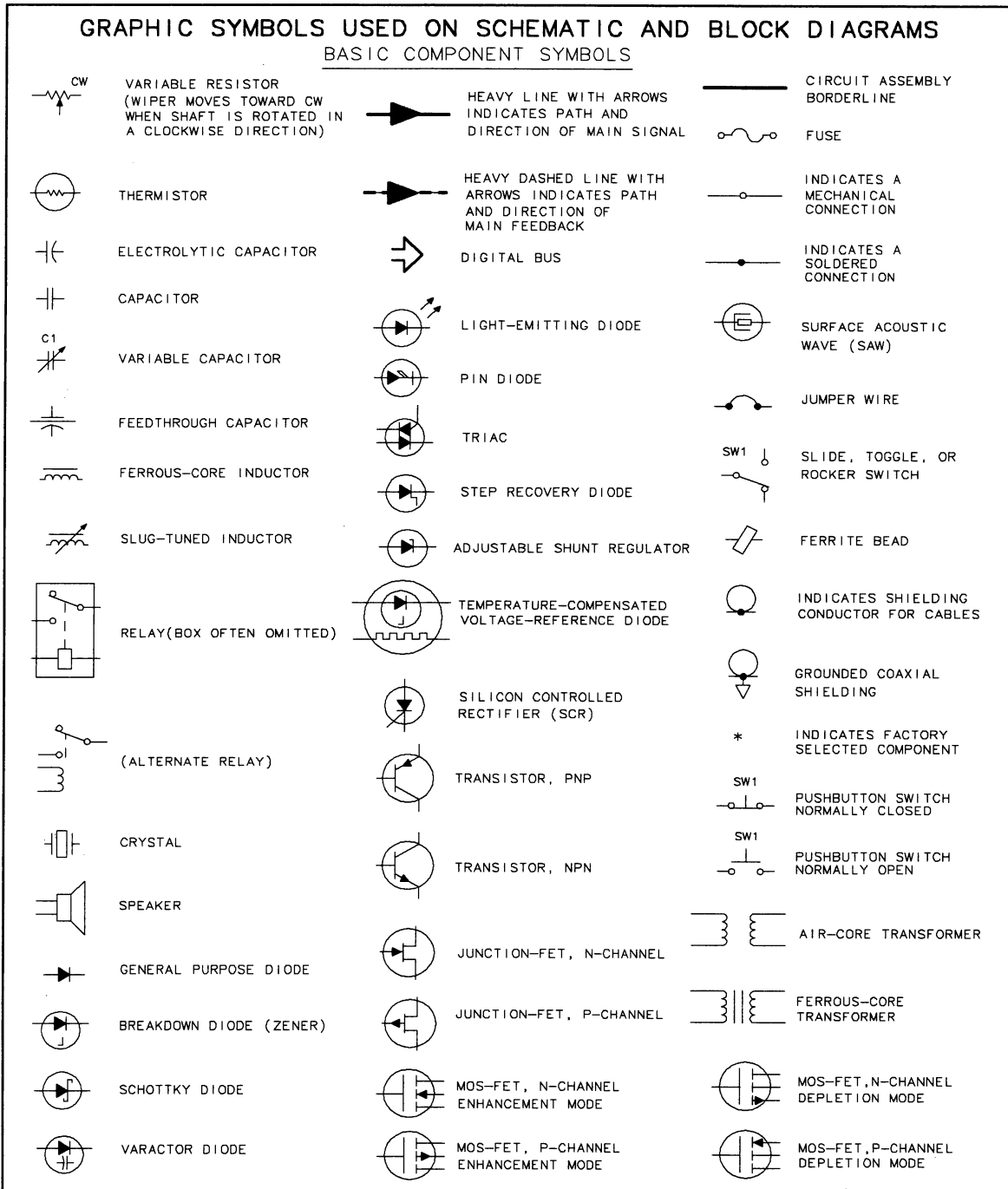
**Table 2. Manufacturers Code List (continued)**

Mfr Code	Manufacturer Name	Address	Country	ZIP Code
09126	ASJ PTE LTD	JURONG TOWN	SG	
09171	RHOMBUS INDUSTRIES INC	HUNTINGTON BEACH, CA	US	92649
09226	NEC ELECTRONICS INC	SANTA CLARA, CA	US	
09235	FOX ELECTRONICS	FT MEYERS, FL	US	33910
09283	TOPAZ SEMICONDUCTOR	SAN JOSE, CA	US	95132
09441	APPLIED ENGINEERING PRODUCT CO	HAMDEM, CT	US	
09448	WAMCO INC	FOUNTAIN VALLEY, CA	US	
09454	PRECISION RESISTIVE PRODS INC	MEDIAPOLIS, IA	US	52637
09507	HEWLETT PACKARD CO, MID	SANTA ROSA, CA	US	95403
09538	TUSONIX	TUCSON, AZ	US	85740
09694	ELECTRONIC ESSENTIALS	WOODSIDE, NY	US	
09849	NDK AMERICA INC	CUPERTINO, CA	US	54014
09855	KOWASANGYO CORP	TOKYO	JP	
09859	CERA-MITE CORP	GRAFTON, WI	US	53024
09862	HITACHI CABLE LTD	TOKYO	JP	
09914	UNITRODE CORP	LEXINGTON, MA	US	
09939	MURATA ERIE NORTH AMERICA INC	SMYRNA, GA	US	30080
09955	BOYD CORP	DENVER, CO	US	
10183	TADIRAN	TEL-AVIV	IS	
10200	ELECTRONIC CONCEPTS INC	EATONTOWN, NJ	US	
10290	COMMODORE SEMICONDUCTOR GROUP	NORRISTOWN, PA	US	
10302	CENTENNIAL PLASTICS	YELLVIELLE, AR	US	
10358	VOGT AG	LOSTORF	GM	
10401	NEW SYSTEMS MOLDING CORP	LOVELAND, CO	US	80537
10407	LSI LOGIC CORP	MILPITAS, CA	US	95035
10421	EPSON	TORRENCE, CA	US	
10443	HP DIV 64 NID	CORVALLIS, OR	US	
10456	PLASTEC PRODUCTS INC	FORT COLLINS, CO	US	
10457	JERMYN INDUSTRIES LTD (63)	KENT SEVENOAKS	EG	
10481	DALE ELECTRONICS INC	NORFOLK, NE	US	68701
10549	SCI MANUFACTURING INC	HUNTSVILLE, AL	US	35805
10572	XICOR, INC	MILPITAS, CA	US	
10631	GASKET SPECIALTIES	BRISBANE, CA	US	
10784	SHINNITOKU ELECTRIC CO LTD	MINATO-KU TOKYO	JP	145
10795	STANDEX - PAUL SMITH DIVISION	CINCINNATI, OH	US	
10858	LINEAR TECHNOLOGY CORP	MILPITAS, CA	US	95035
10881	THOMSON-CSF	COURBEVOIE	FR	
10905	FIRA	LYON	FR	
11047	TEKA PRODUCTS INC	WOODSIDE, NY	US	
11111	SEEQ TECHNOLOGY INC	SAN JOSE, CA	US	
11171	SYNERGY MICROWAVE CORP	FAIRFIELD, NJ	US	
11187	VLSI TECHNOLOGY INC	SAN JOSE, CA	US	95131
11212	INDUCTOR SUPPLY, INC.	HUNTINGTON BEACH, CA	US	
11248	MICRON DIV OF R G ALLEN CO INC	NORTH HOLLYWOOD, CA	US	
11263	W GUNTHER GMBH	NURNBERG	GM	
11298	AVEL-LINDBURG	DANBURY	CT	

**14 General CLIP Information**

**Table 2. Manufacturers Code List (continued)**

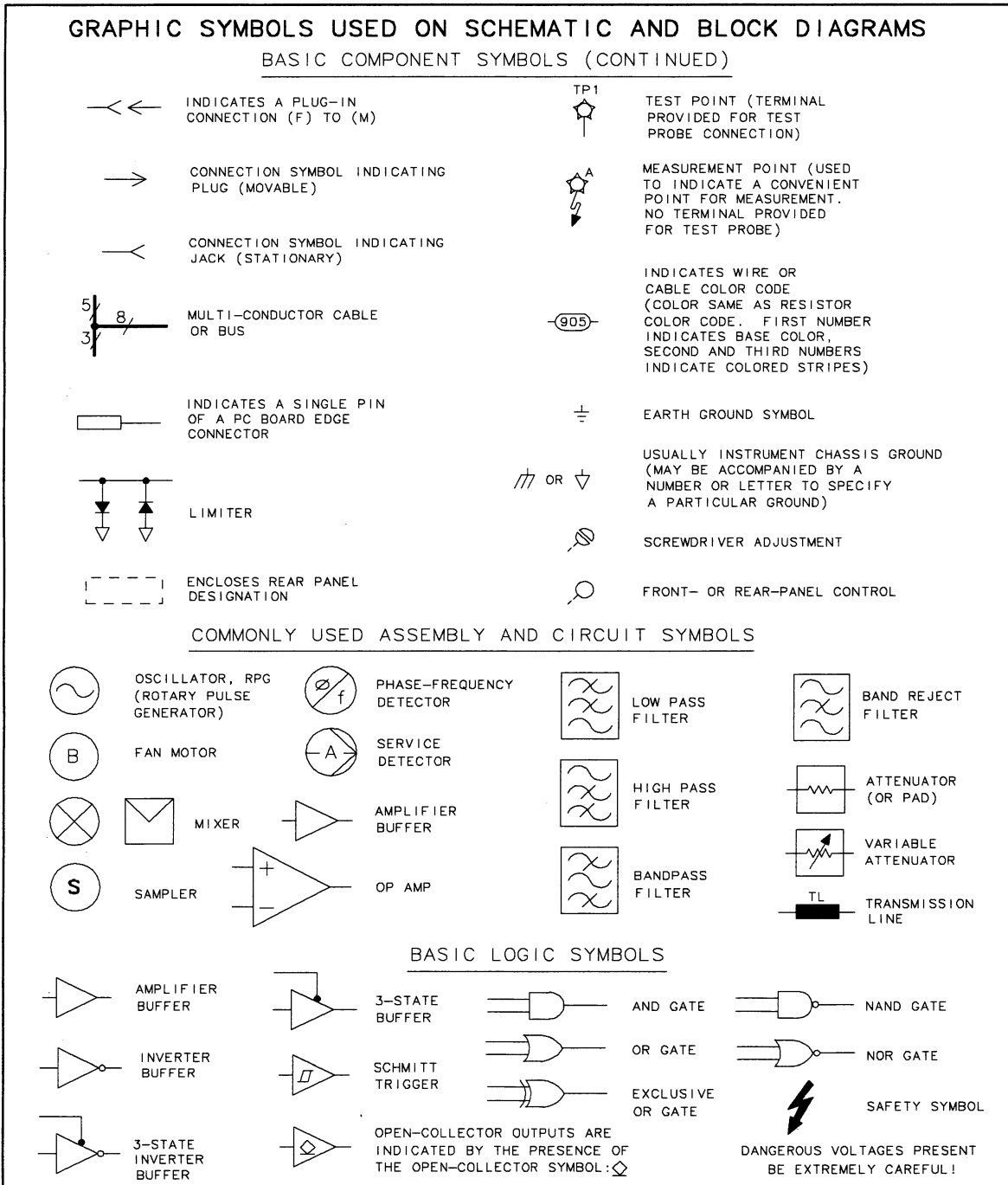
<b>Mfr Code</b>	<b>Manufacturer Name</b>	<b>Address</b>	<b>Country</b>	<b>ZIP Code</b>
11345	CYPRESS SEMICONDUCTOR CORP	SAN JOSE, CA	US	95134
11357	BRISTOL ROYAL WORKSHOP BLIND	BRISTOL	EG	
11412	ISOLANTITE MFG COMPANY INC	STIRLING, NJ	US	
11421	KYOCERA CORPORATION	KYOTO	JP	
11599	MICRO-COAX COMPONENTS, INC	COLLEGEVILLE, PA	US	19426
11677	SARONIX	PALO ALTO, CA	US	
11684	JOSLYN DEFENSE SYSTEMS INC	BURLINGTON, VT	US	05401
11686	KYUSHU DENTSU CO LTD	NAGASAKI	JP	
11699	CENTRAL SEMICONDUCTOR CORP	HAUPPAUGE, NY	US	11788
11703	POWER GENERAL	CANTON, MA	US	
11708	THOMSON SEMICONDUCTORS	VELIZY VILLACOU	FR	78140
11723	CTL COMPONENTS LTD	LONDON	EG	SW19
11781	MIDLAND-ROSS CORP	LIVINGSTON, NJ	US	07039
11844	ELECTREY S A	MONTERREY	MX	64000
11892	EVOX/RIFA INC	LINCOLNSHIRE, IL	US	60015
11920	MIYAMA DENSEN CO LTD	TOKYO	JP	
11946	BKC INTERNATIONAL ELECTRONICS	LAWRENCE, MA	US	01841
11961	ALEXCO ENGINEERING SUPPLIES	COWDENBEATH	EG	KY4 9
11981	POWEREX	YOUNGWOOD, PA	US	15697
12125	SAMSUNG SEMICONDUCTOR INC	SANTA CLARA, CA	US	95054
12127	RF MONOLITHICS INC	DALLAS, TX	US	75234
12131	PRESIDIO COMPONENTS INC	SAN DIEGO, CA	US	92121
12186	DALLAS SEMICONDUCTOR CORP	DALLAS, TX	US	75244
12213	STACKPOLE ELECTRONICS INC	RALEIGH, NC	US	27620
12261	ERIE SPECIALTY PRODUCTS INC	ERIE, PA	US	16512
12340	KEMET ELECTRONICS CORPORATION	GREENVILLE, SC	US	29606
12355	INTERCONNECTION PRODUCTS INC	SANTA ANA, CA	US	92707
12382	LATTICE SEMICONDUCTOR CORP	BEAVERTON, OR	US	97006
12395	FEI MICROWAVE, INC.	SUNNYVALE, CA	US	94086
12418	OWL WIRE AND CABLE	CANASTATA, NY	US	13032
12456	WIRE PRO INC	SALEM, NJ	US	08079
12465	INTERNATIONAL POWER DEVICES	BRIGHTON, MA	US	02135
12473	AVX-RALEIGH DIVISION	RALEIGH, NC	US	27604
12482	BRADFORD ELECTRONICS INC	BRADFORD, PA	US	16701
12513	BUNNELL PLASTICS, INC	MICKLETON, NJ	US	08056
12516	MICROTRONICS ASSOCIATES PTE LTD	SINGAPORE	SG	1334
12580	SOUTH AMERICAN DEVELOPMENT CO	HYDE PARK, NY	US	12538
12656	BEYSCHLAG GMBH	HEIDE	GM	
12703	CHAMPION TECHNOLOGIES INC	FRANKLIN PARK, IL	US	60131
12830	KETEMA	BENSALEM, PA	US	19020
12845	WARTH INTERNATIONAL LTD	EAST GRINSTEAD	EG	RH192
12896	DOWKEY MICROWAVE INC	VENTURA, CA	US	93003
28480	HEWLETT PACKARD CO	CUPERTINO, CA	US	95014



FORMATB1

Figure 1. Graphics Symbols (1 of 2)





FORMAT82

Figure 1. Graphics Symbols (2 of 2)



# **Component-Level Information Packet for 08590-60201**

## **Keyboard**



**HP Part No. 08590-90204  
Printed in USA May 1997**

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**HP Part Number 08590-60201**  
**Keyboard**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
J1	1252-1065	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1065
J2	1252-2043	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2043
J3	1251-7678	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-7678

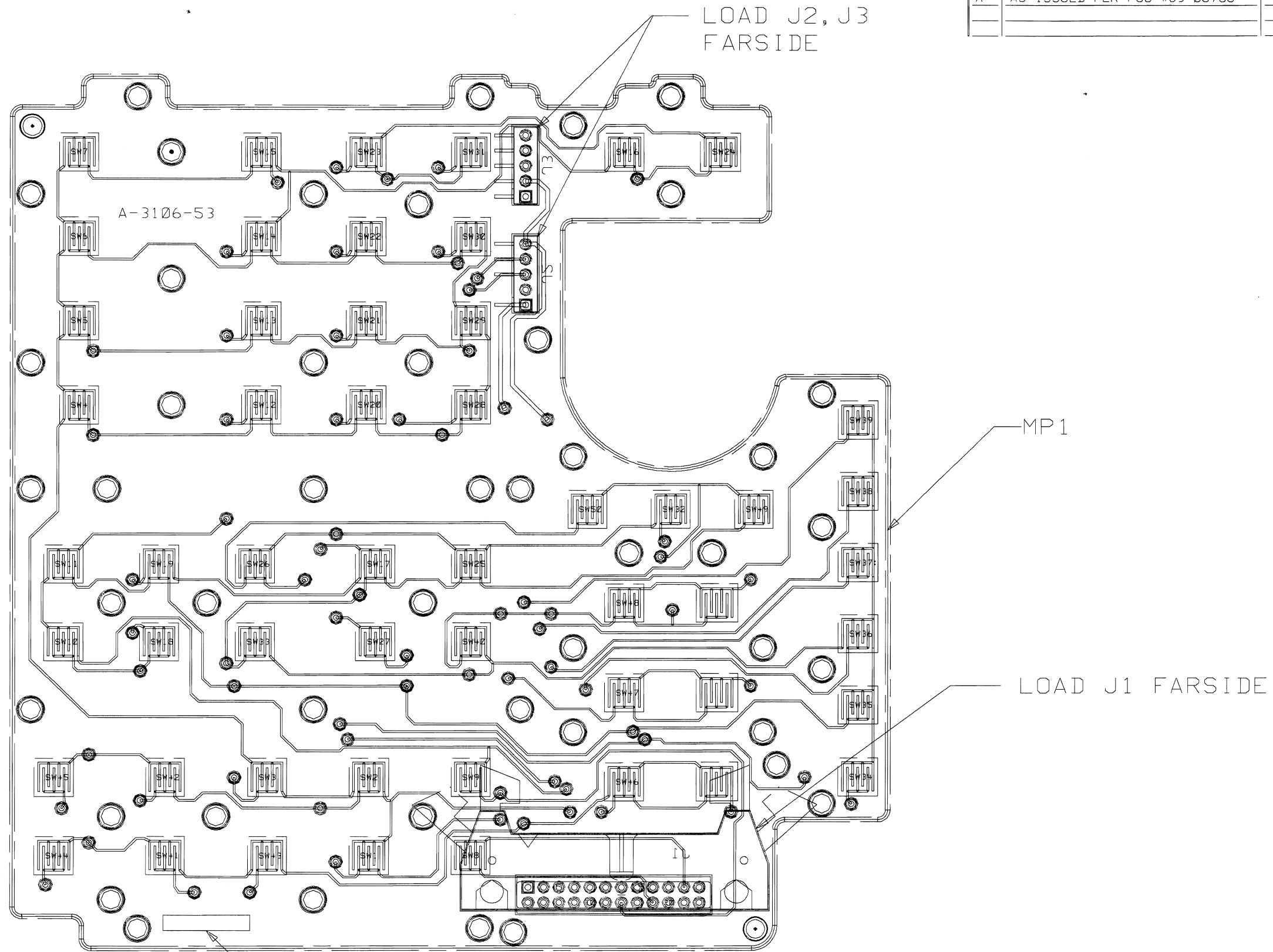
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Artek Media**

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C-08590-60201-2

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCD #53-06788		



08590-20201 MOUNTING BOARD FOR KEYBOARD MP-2-91 ST0416094226

SEE MATERIAL LIST 08590-60201

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 TOLERANCES: XX.XXX ±.010  
 XX.XX ±.02  
 THIRD ANGLE  
 PROJECTION

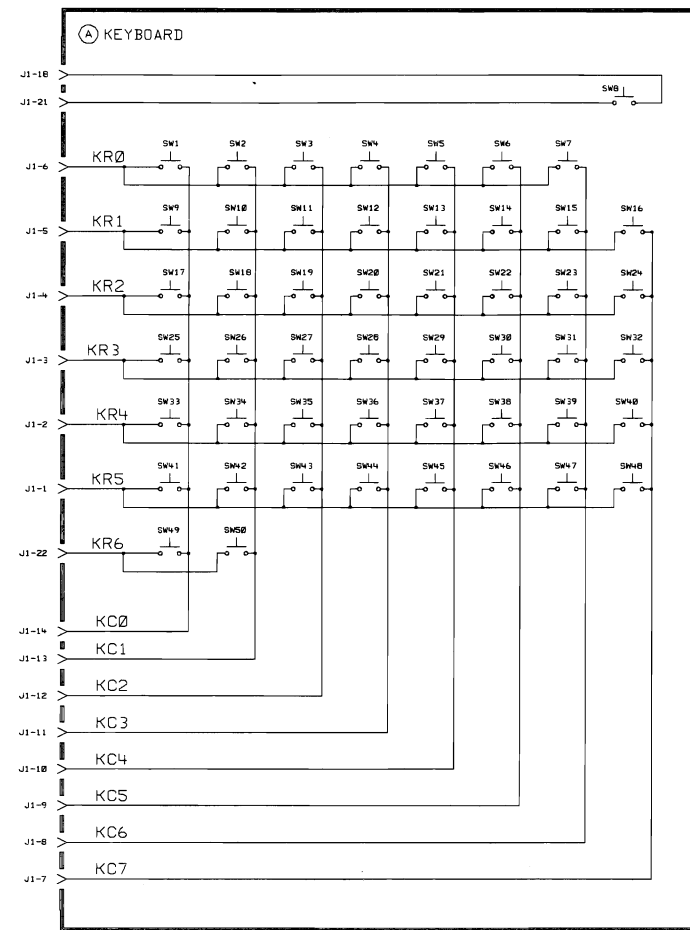
DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
 KEYBOARD  
 TITLE

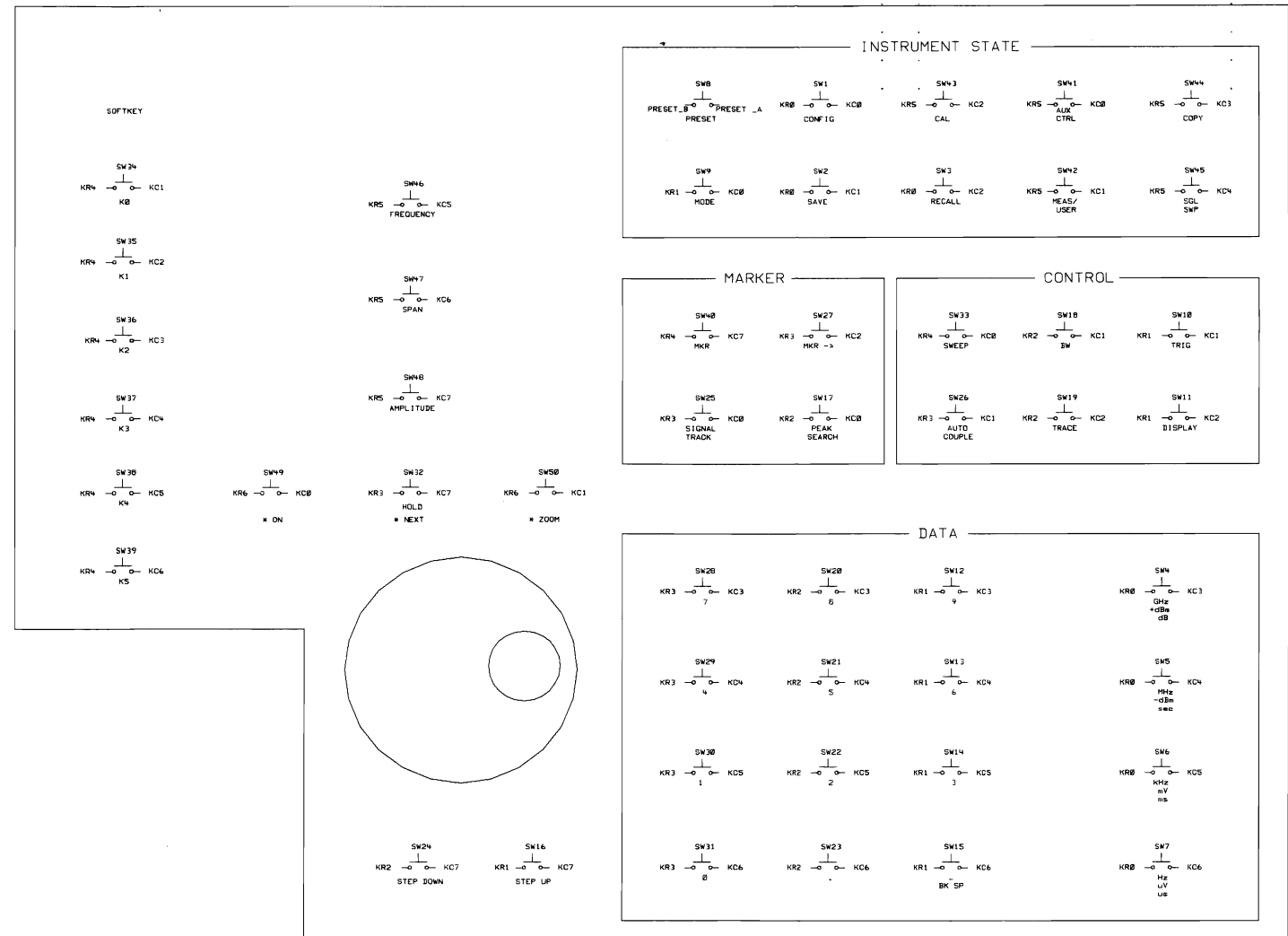
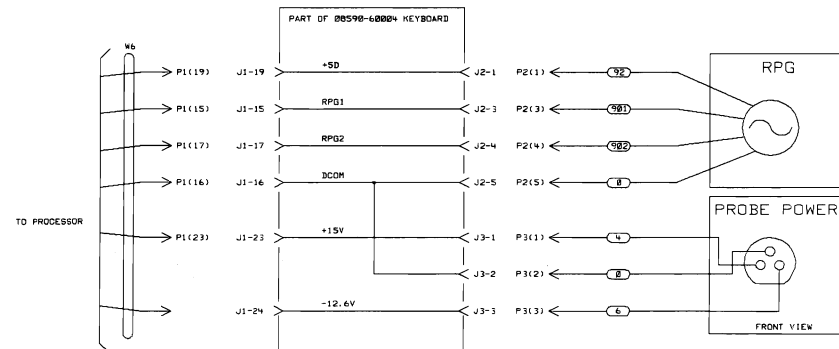
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SCALE 2/1	
SHEET 1 OF 1	08590-60201 PART NUMBER
C-08590-60201-2	

Scans by ArtekMedia => 2010

SYM	REVISIONS	APPROVED	DATE
1	RELEASED TO PROTO		



NOTE: PIN 1 DESIGNATION ON THE RIBBON CABLE W6 AND ITS END CONNECTORS MUST BE IGNORED. FOLLOW THE PIN DESIGNATION LAYOUT ON THE PROCESSOR AND KEYBOARD ASSEMBLIES.



\* 6594E ONLY

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ITEM	QTY.	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRAWN BY		DATE		BOARD ASSEMBLY-KEYBOARD	
ENGINEER/CHECKER				TITLE (SCHEMATIC)	
RELEASE TO PROD.		FILENAME=5201A10		PART NUMBER 08590-60201	
SUPERSEDES DWG.		SCALE NONE		SHEET 1 OF 1	



D-08590-60201-1



# **Component-Level Information Packet for 08569-60026**

## **Comb Generator**



**HP Part No. 08569-90132  
Printed in USA July 1995**

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**HP Part Number 08569-60026  
Comb Generator**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-0127	1	CAP-FXD 1uF +-20% 50 V CER Z5U	28480	0160-0127
C2	0160-0127	1	CAP-FXD 1uF +-20% 50 V CER Z5U	28480	0160-0127
C3	0121-0451	1	CAP-VAR 11pF 1.7pF 175 V AIR	28480	0121-0451
C4	0160-4793	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	28480	0160-4793
C5	0121-0451	1	CAP-VAR 11pF 1.7pF 175 V AIR	28480	0121-0451
C6	0160-4814	1	CAP-FXD 150pF +-5% 100 V CER C0G	28480	0160-4814
C7	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C8	0160-4786	1	CAP-FXD 27pF +-5% 100 V CER C0G	28480	0160-4786
C10	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C11	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C12	0160-4521	1	CAP-FXD 12pF +-5% 200 V CER C0G	28480	0160-4521
C13	0160-0127	1	CAP-FXD 1uF +-20% 50 V CER Z5U	28480	0160-0127
C14	0180-3888	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3888
C15	0121-0046	1	CAP-VAR 35pF 9pF 200 V CER	28480	0121-0046
C17	0160-0127	1	CAP-FXD 1uF +-20% 50 V CER Z5U	28480	0160-0127
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR3	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR4	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR5	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
E1	9170-0847	1	CORE-SHIELDING BEAD	28480	9170-0847
L1	9100-2249	1	INDUCTOR RF-CH-MLD 150nH +-10%	28480	9100-2249
L2	9140-0141	1	INDUCTOR RF-CH-MLD 680nH +-10%	28480	9140-0141
L3	9100-2254	1	INDUCTOR RF-CH-MLD 390nH +-10%	28480	9100-2254
L4	9100-2249	1	INDUCTOR RF-CH-MLD 150nH +-10%	28480	9100-2249
L5	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L6	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
MP2	1205-0226	1	HEAT SINK SGL TO-5/TO-39-CS	02608	1115B
MP4	08569-20026	1	COMB GEN PC BD	28480	08569-20026
Q1	1854-0247	1	TRANSISTOR NPN SI TO-39 PD=1W FT=800MHZ	28480	1854-0247
Q2	1854-0247	1	TRANSISTOR NPN SI TO-39 PD=1W FT=800MHZ	28480	1854-0247
Q3	1854-0784	1	TRANSISTOR NPN 2N3866A SI TO-39 PD=5W	28480	1854-0784
R1	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R2	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R3	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205

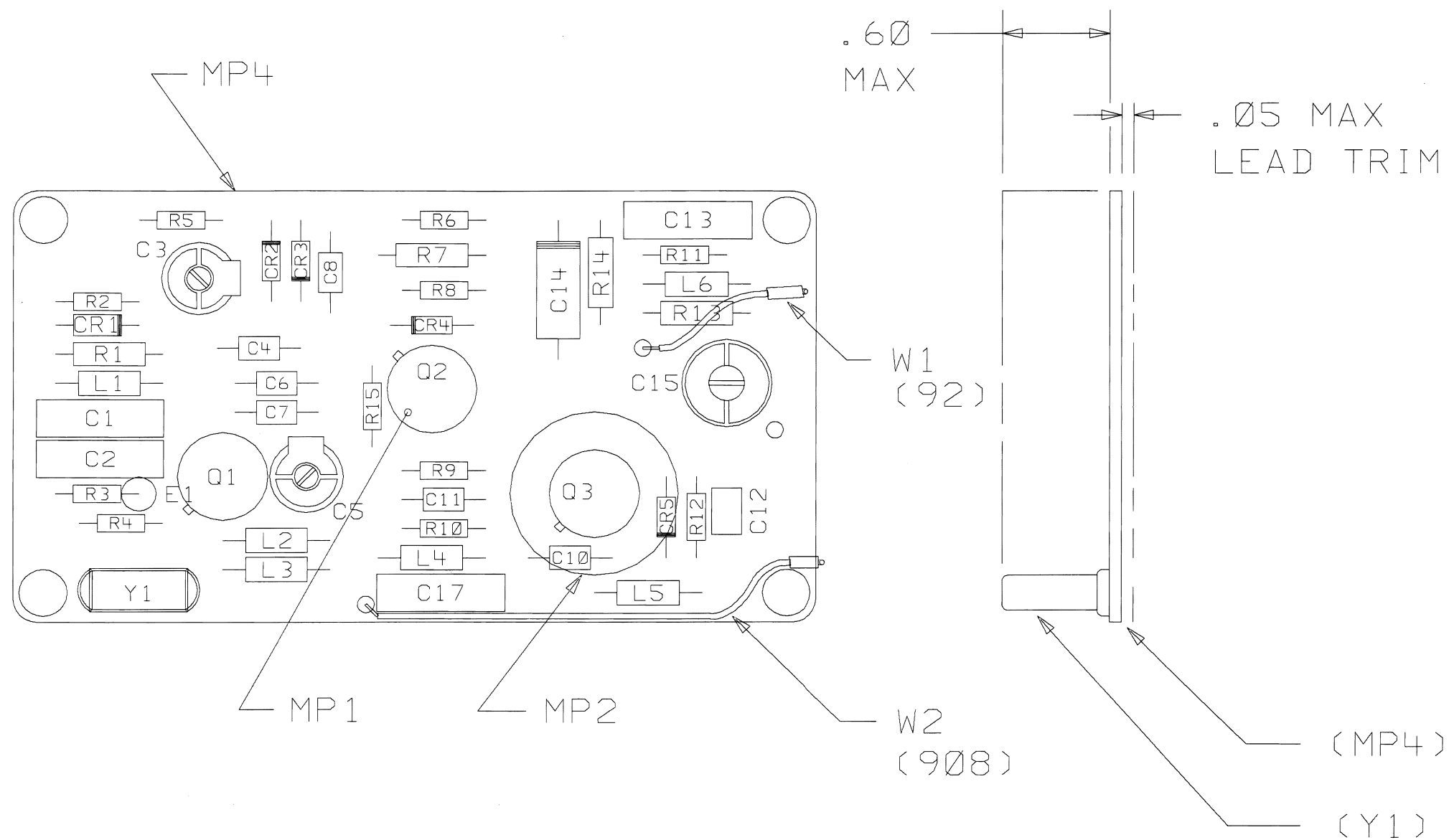
*\*Indicates factory-selected value*

**CLIP 08569-90132 1**

**HP Part Number 08569-60026  
Comb Generator (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R4	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R5	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R6	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
R7	0757-0274	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	28480	0757-0274
R8	0698-7222	1	RESISTOR 261 +-1% .05W TF TC=0+-100	28480	0698-7222
R9	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R10	0698-7208	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	28480	0698-7208
R11	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R12	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R13	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R14	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R15	0698-7281	1	RESISTOR 75K +-2% .05W TF TC=0+-100	28480	0698-7281
Y1	0410-0482	1	PRECISION BULK MODE-AT FREQ=100 MHZ	01409	100 MHZ-C251DDD-00

SYM	REVISIONS	APPROVED		DATE	
		A	AS ISSUED		
B	SHRINK TUBE & MOLEX CONN ADDED TO W1 & W2.			01-28-83	



SEE 08569-6026 MATERIAL LIST

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                  XX.XX ± .02  
THIRD ANGLE  
PROJECTION

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
  
COMB GEN  
  
TITLE

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SCALE NONE	
SHEET 1 OF 1	08569-60026 PART NUMBER
C-08569-60026-1	

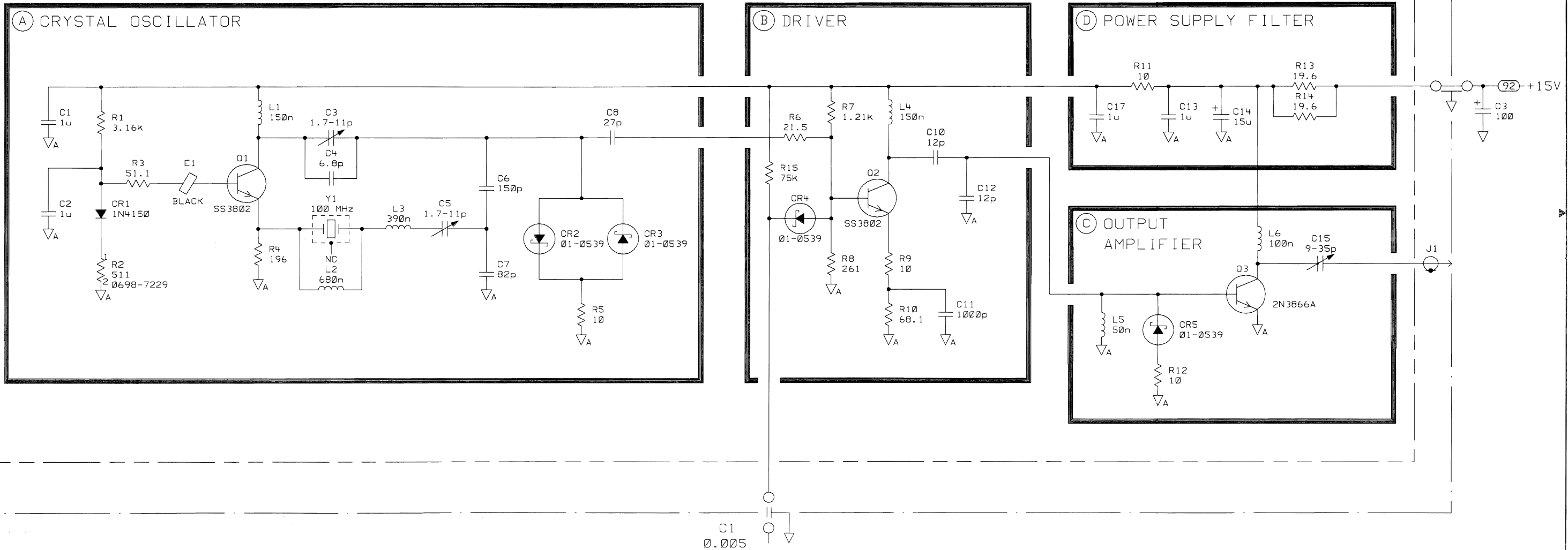
5300

B-08569-60026-2

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		

COMB GENERATOR  
08569-60024

08569-60026



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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
  
COMB GEN  
  
TITLE

s1adp026 FILENAME	HEWLETT PACKARD
NONE SCALE	
1 OF 1 SHEET	08569-60026 PART NUMBER
B-08569-60026-2	

# **Component-Level Information Packet for 08590-60155**

## **Second Converter Tripler**



**HP Part No. 08590-90117  
Printed in USA May 1997**

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**HP Part Number 08590-60155  
Second Converter Tripler**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C2	0160-5961	1	CAP-FXD 22pF +-5% 50 V CER C0G	28480	0160-5961
C3	0160-5967	1	CAP-FXD 100pF +-5% 50 V CER C0G	28480	0160-5967
C4	0160-5960	1	CAP-FXD 27pF +-5% 50 V CER C0G	28480	0160-5960
C5	0160-5971	1	CAP-FXD 4.7pF +-10.64% 50 V CER C0G	28480	0160-5971
CR1	1902-0048	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
L2	9140-1206	1	INDUCTOR 100nH +-5% 2.8W-mmX3.4LG-mm	28480	9140-1206
L3	9140-1561	1	INDUCTOR 22nH +-5% -5% 2.8W-mmX3.4LG-mm	28480	9140-1561
Q1	1854-1295	1	TRANSISTOR NPN SI PD=600MW	28480	1854-1295
R1	0699-1432	1	RESISTOR 511 +-1% .125W TKF TC=0+-100	28480	0699-1432
R2	0699-1432	1	RESISTOR 511 +-1% .125W TKF TC=0+-100	28480	0699-1432
R3	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344

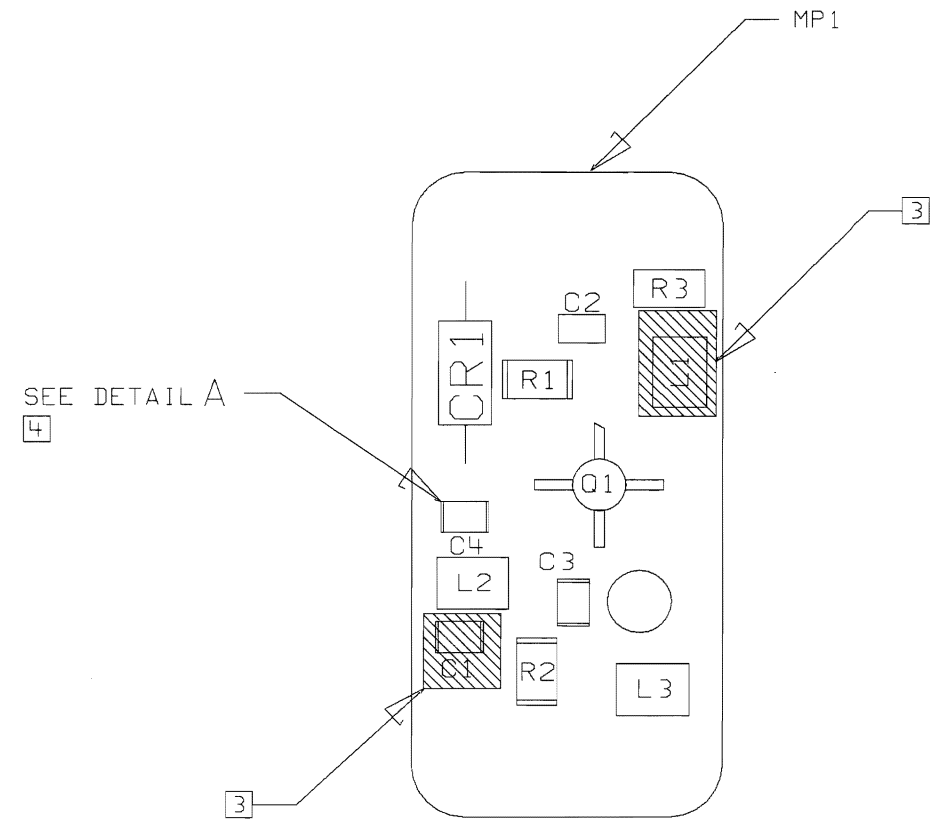
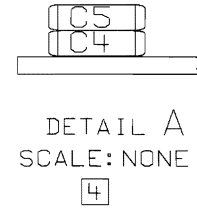
*\*Indicates factory-selected value*

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**SCANS  
By  
Artek Media**

SYM	REVISIONS	APPROVED	DATE
B	REV'D & REDRAWN PCO 53-07671		
C	PER PCO 53-08057 DM		



NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 08590-20155
2. DATE CODE FAR SIDE A-2846-53
3. PARTS HATCHED ARE NOT TO BE LOADED FOR THIS ASSEMBLY
4. PIGGYBACK C5 TO C4 AS SHOWN IN DETAIL A

SEE 08590-60155 MATERIAL LIST

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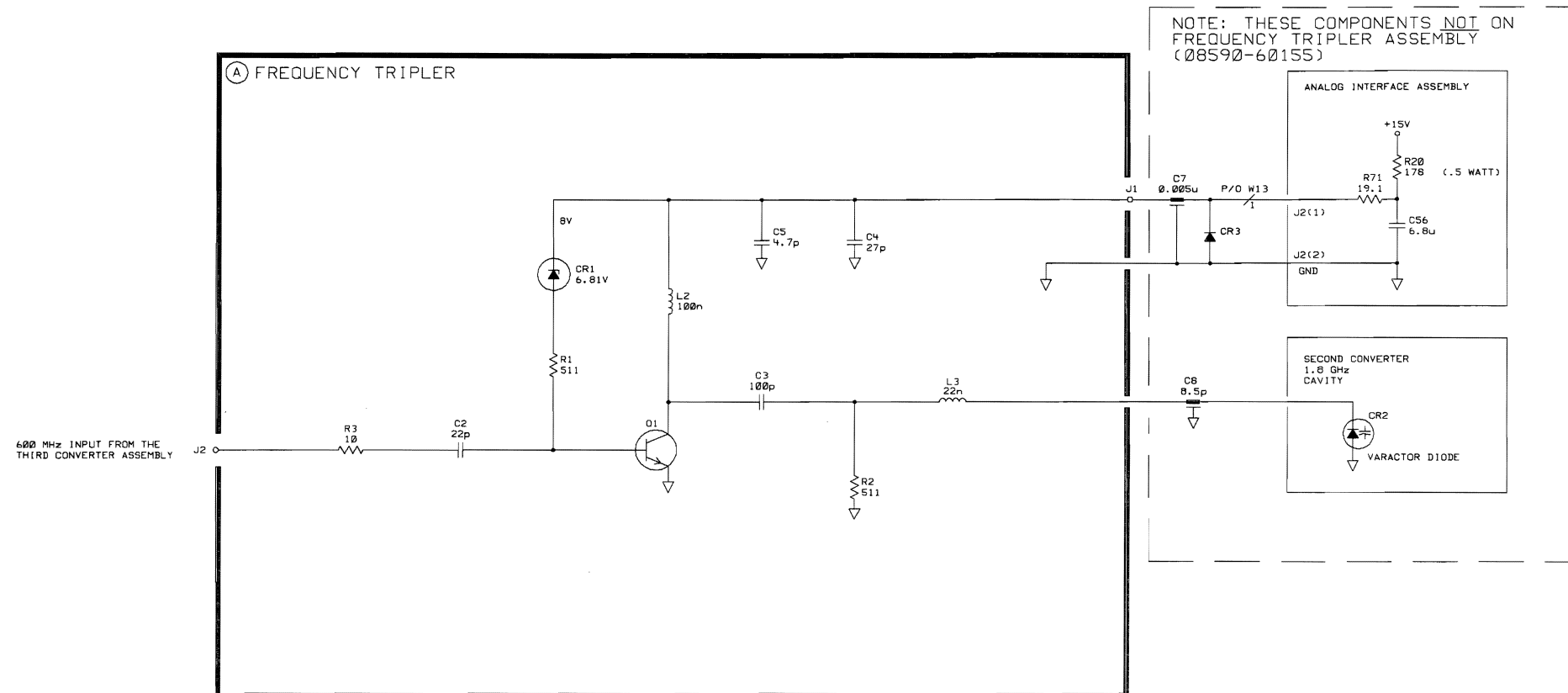
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                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION   
DO NOT SCALE THIS DRAWING

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ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
C-08590-60155-2 SUPERSEDES DWG.	05-10-88

ASSEMBLY, PWB  
FREQUENCY  
TRIPLER  
TITLE

a1abb155 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET OF 1	08590-60155 PART NUMBER
C-08590-60155-2	

SYM	REVISIONS	APPROVED	DATE
B	REV'D REDRAWN PCO 53-07671		
C	CHANGE PER PCO 53-08057 DM		
D	CHANGED M/L PCO 5300-08072 LN		



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SCHMATIC, PWA  
FREQUENCY  
TRIPLER

slabb155	FILENAME	HEWLETT PACKARD
NONE	SCALE	
1 OF 1	SHEET	08590-60155
	PART NUMBER	C-08590-60155-1

# **Component-Level Information Packet for 08590-60197**

## **Analog Interface**



**HP Part No. 08590-90205  
Printed in USA May 1997**

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**HP Part Number 08590-60197**  
**Analog Interface**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C4	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C5	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C6	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C7	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C8	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C9	0180-3636	1	CAP-FXD 330uF +-20% 35 V AL-ELCTLT	28480	0180-3636
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C11	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C14	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C15	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C18	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C19	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C20	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C21	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C22	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C23	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C24	0160-6223	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	28480	0160-6223
C25	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C26	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C27	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C28	0180-3817	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C31	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C32	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C33	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C34	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C35	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-5098	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	28480	0160-5098

\*Indicates factory-selected value

CLIP 08590-90205 1

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C38	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C39	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C40	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C41	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C44	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C45	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C46	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C47	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C48	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C49	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C50	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C51	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C52	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C53	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C54	0160-5412	1	CAP-FXD 16pF +-5% 100 V CER C0G	28480	0160-5412
C55	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C56	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C57	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C61	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C62	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C63	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C64	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C101	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C102	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C103	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C106	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C107	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835



**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C111	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C114	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C150	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C151	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR4	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR5	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1252-2260	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2260
J3	1252-3106	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3106
J4	1252-1470	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1470
J5	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
L1	9100-1622	1	INDUCTOR RF-CH-MLD 24uH +-5%	28480	9100-1622
L2	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L3	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L5	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
MP3	1205-0639	1	HEAT SINK SGL TO-220-CS	07179	576802B03100
MP4	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP5	5021-8654	1	STANDOFF-RF	28480	5021-8654
MP6	5021-8657	1	NUT-STANDOFF	28480	5021-8657
MP7	0380-1242	1	STANDOFF-RVT-ON 20-MM-LG M3.0 X 0.5-THD	02121	
MP150	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
Q1	1854-0456	1	TRANSISTOR NPN SI PD=65W FT=3MHZ	28480	1854-0456
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q4	1855-0686	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	28480	1855-0686
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q7	1855-0414	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	02237	
Q8	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	

\*Indicates factory-selected value

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**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q9	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q10	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q20	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q21	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q90	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q101	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q150	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
R1	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R2	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R3	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R4	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R5	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R6	0698-6344	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	28480	0698-6344
R7	0698-6323	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	28480	0698-6323
R8	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R9	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R10	0699-1909	1	RESISTOR 2.31K +0.1% .125W TF TC=0+-25	28480	0699-1909
R11	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R12	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R13	0698-8907	1	RESISTOR 320 +0.25% .25W TF TC=0+-50	28480	0698-8907
R14	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R15	0757-1000	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	28480	0757-1000
R16	0757-1000	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	28480	0757-1000
R17	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R18	0698-6362	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	28480	0698-6362
R19	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-3334	1	RESISTOR 178 +-1% .5W TF TC=0+-100	28480	0698-3334
R21	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R23	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R24	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R25	0699-0400	1	RESISTOR 3.6K +0.1% .125W TF TC=0+-25	28480	0699-0400
R26	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R27	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R28	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280

**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R29	0699-0154	1	RESISTOR 7.2K +-0.1% .125W TF TC=0+-25	28480	0699-0154
R30	0699-1866	1	RESISTOR 2.7K +-0.1% .1W TF TC=0+-10	28480	0699-1866
R31	0699-1910	1	RESISTOR 691.2K +-0.1% .125W TF TC=0+-25	28480	0699-1910
R32	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R33	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R34	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R35	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R36	0757-1094	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	28480	0757-1094
R37	0699-0400	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	28480	0699-0400
R38	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R39	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R40	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R41	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R42	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R43	0698-3438	1	RESISTOR 147 +-1% .125W TF TC=0+-100	28480	0698-3438
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R47	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R48	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R49	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R50	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	28480	0699-1147
R51	0699-0078	1	RESISTOR 2.1K +-0.1% .1W TF TC=0+-10	28480	0699-0078
R52	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R53	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R54	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R55	0698-6355	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0698-6355
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R58	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R59	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R60	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R61	0699-1910	1	RESISTOR 691.2K +-0.1% .125W TF TC=0+-25	28480	0699-1910
R63	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R64	0698-8838	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	28480	0698-8838

\*Indicates factory-selected value

**HP Part Number 08590-60197  
Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R65	0698-3942	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	28480	0698-3942
R66	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R67	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R68	0757-0198	1	RESISTOR 100 +-1% .5W TF TC=0+-100	28480	0757-0198
R69	0757-0477	1	RESISTOR 332K +-1% .125W TF TC=0+-100	28480	0757-0477
R70	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R71	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R72	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R73	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R80	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R81	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R82	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R83	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R90	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R102	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R103	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R104	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R105	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R106	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R107	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R111	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R112	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R113	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R116	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R117	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R118	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R119	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R120	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447

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**Analog Interface (continued)**

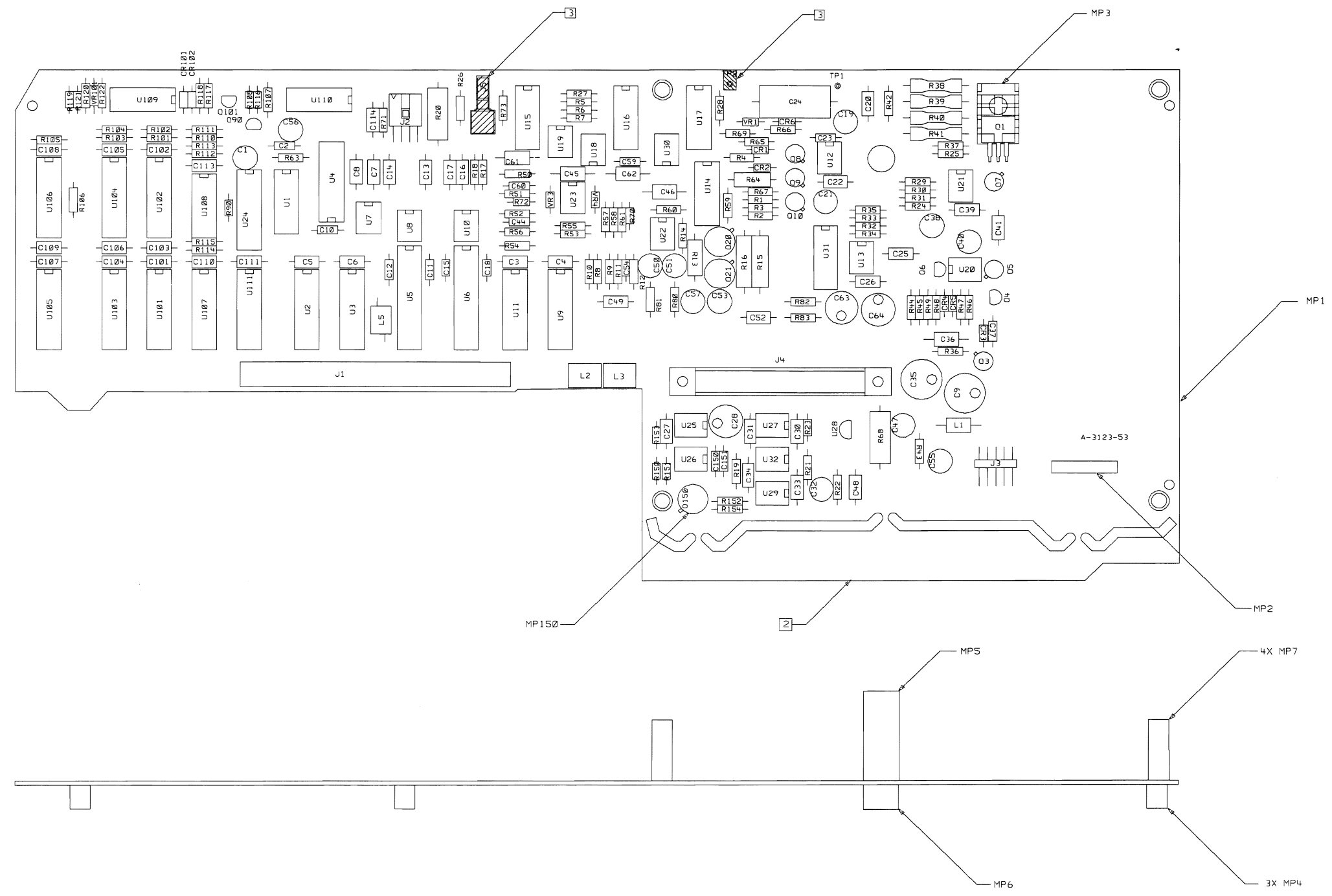
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R150	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R151	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R152	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R153	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R154	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
TP1	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U3	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U4	1826-1386	1	D/A 12-BIT 18-PLASTIC CMOS	28480	1826-1386
U5	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U8	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U9	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U14	1826-0811	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U18	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U19	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-1461	1	IC OP AMP LOW-BIAS-H-IMPED 8 PIN DIP-P	28480	1826-1461
U21	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U25	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U26	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U27	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U28	1826-0285	1	IC PWR MGT-V-REG-FXD-NEG -4.8/-5.2V 3	28480	1826-0285
U29	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049

\*Indicates factory-selected value

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**HP Part Number 08590-60197**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U30	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U32	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0547
U101	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1858-0047	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U111	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
VR1	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	02037	SZ30035-8
VR4	1902-0962	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02037	SZ30035-2
VR101	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579

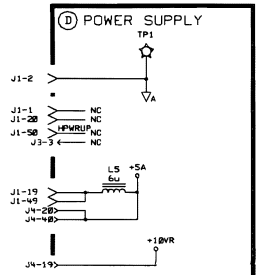
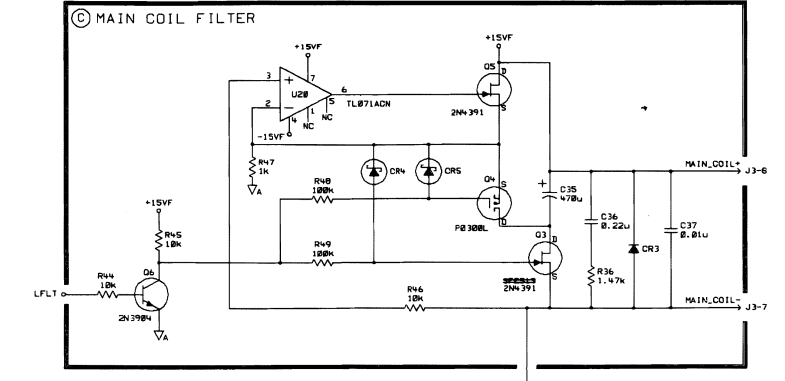
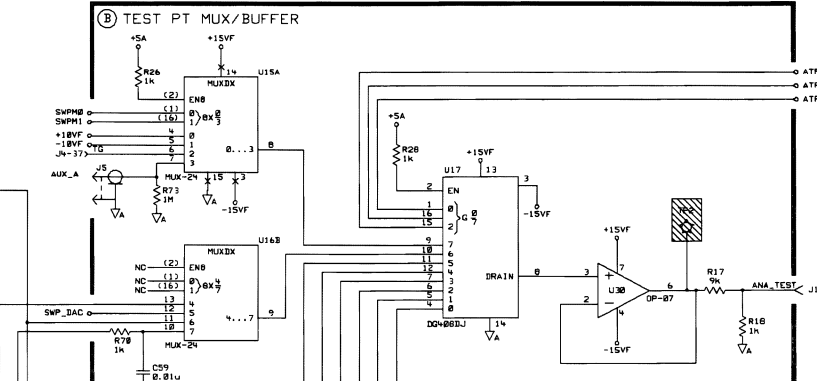
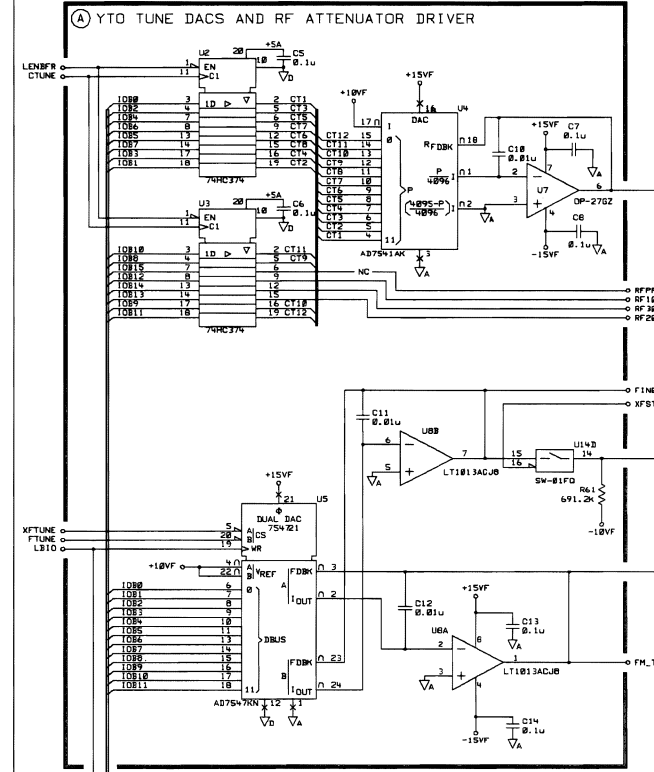


- NOTES: UNLESS OTHERWISE SPECIFIED
1. DIMENSIONS ARE IN INCHES.
  2. REMOVE TABS AFTER WAVE SOLDER.
  3. HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.
  4. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A7.

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PROPRIETARY INFORMATION THAT IS  
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NOT DISCLOSE TO OR DUPLICATE FOR  
OTHERS EXCEPT AS AUTHORIZED BY HP.

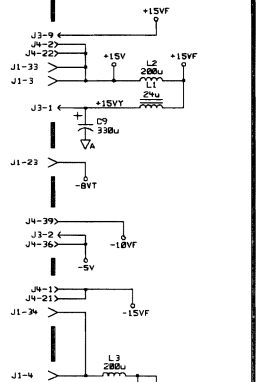
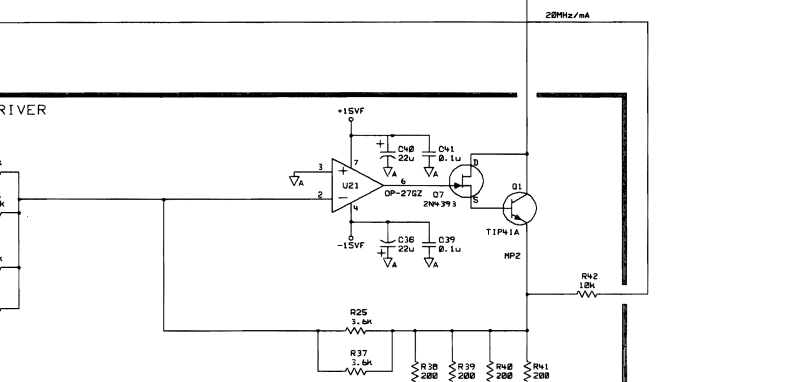
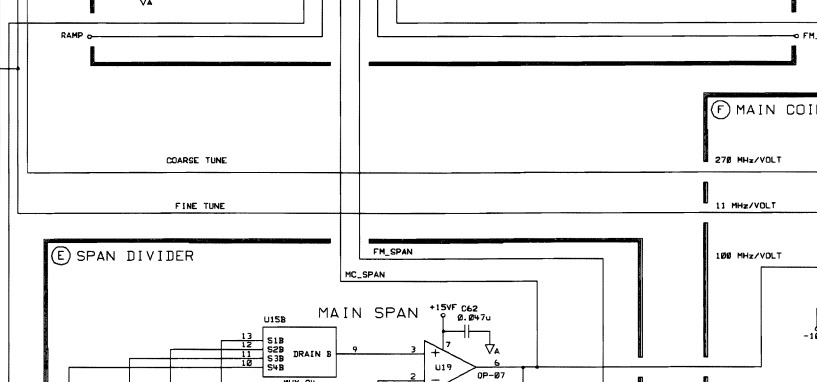
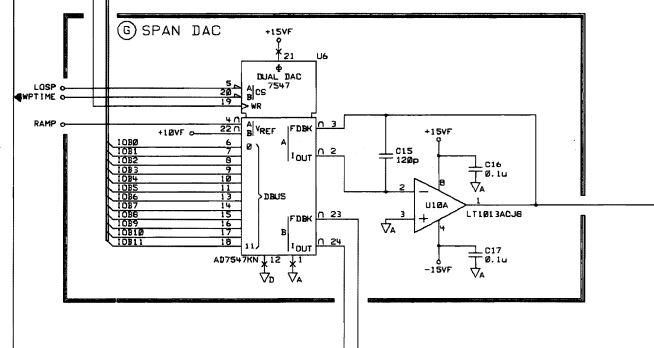
SEE 08590-60197 MATERIAL LIST

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES: .01, .015, .030	DRAWN BY	DATE	BOARD ASSEMBLY- ANALOG INTERFACE	<b>HEWLETT PACKARD</b>
	ENGINEER/CHECKER			
RELEASED TO PROD.	TITLE	NONE	PART NUMBER 08590-60197	
SEE CORR. STD. 489	SUPPLEMENTS INC.	SCALE	SHEET 1 OF 1	E -08590-60197-2



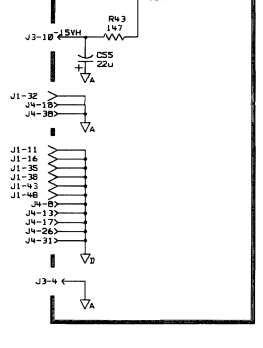
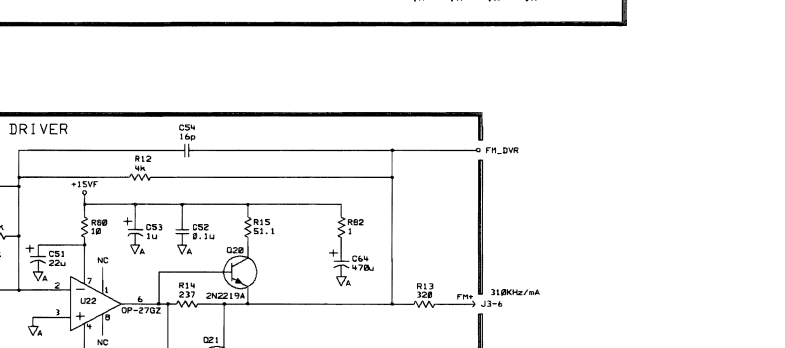
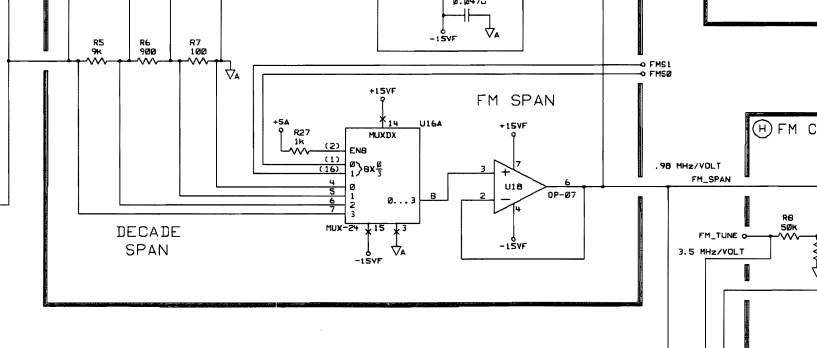
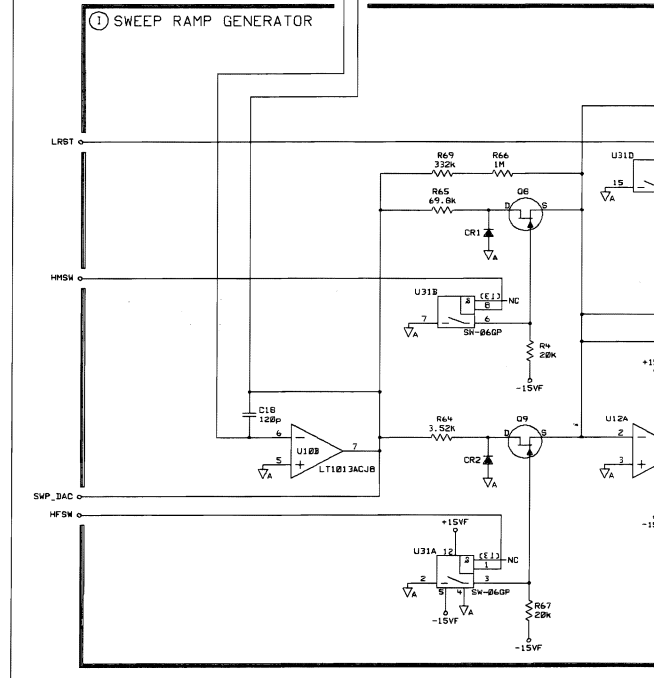
**J1 MOTHERBOARD**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC		D
2	AGND		D
3	+15V		D
4	-15V		D
5	LB10		T
6	LB11		T
7	LB12		T
8	LB13		T
9	LB14		T
10	LB15		T
11	LB16		T
12	LB17		T
13	LB18		T
14	LB19		T
15	LB20		T
16	LB21		T
17	LB22		T
18	LB23		T
19	LB24		T
20	LB25		T
21	LB26		T
22	LB27		T
23	LB28		T
24	LB29		T
25	LB30		T
26	LB31		T
27	LB32		T
28	LB33		T
29	LB34		T
30	LB35		T
31	LB36		T
32	LB37		T
33	LB38		T
34	LB39		T
35	LB40		T
36	LB41		T
37	LB42		T
38	LB43		T
39	LB44		T
40	LB45		T
41	LB46		T
42	LB47		T
43	LB48		T
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45	LB50		T
46	LB51		T
47	LB52		T
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88	LB93		T
89	LB94		T
90	LB95		T
91	LB96		T
92	LB97		T
93	LB98		T
94	LB99		T
95	LB100		T



**J2 2ND CONV & ATTN.**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+15V		V
2	-15V		N
3	+15V		N
4	-15V		N
5	AGND		N
6	LB98		N
7	LB99		N
8	LB100		N



**J3 YIG**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+15V		D
2	-15V		D
3	LB10		D
4	LB11		D
5	LB12		D
6	LB13		D
7	LB14		D
8	LB15		D
9	LB16		D
10	LB17		D
11	LB18		D
12	LB19		D
13	LB20		D
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23	LB30		D
24	LB31		D
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89	LB96		D
90	LB97		D
91	LB98		D
92	LB99		D
93	LB100		D

**J4 TG**

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+15V		D
2	-15V		D
3	LB10		D
4	LB11		D
5	LB12		D
6	LB13		D
7	LB14		D
8	LB15		D
9	LB16		D
10	LB17		D
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**MNEMONIC SHEET**

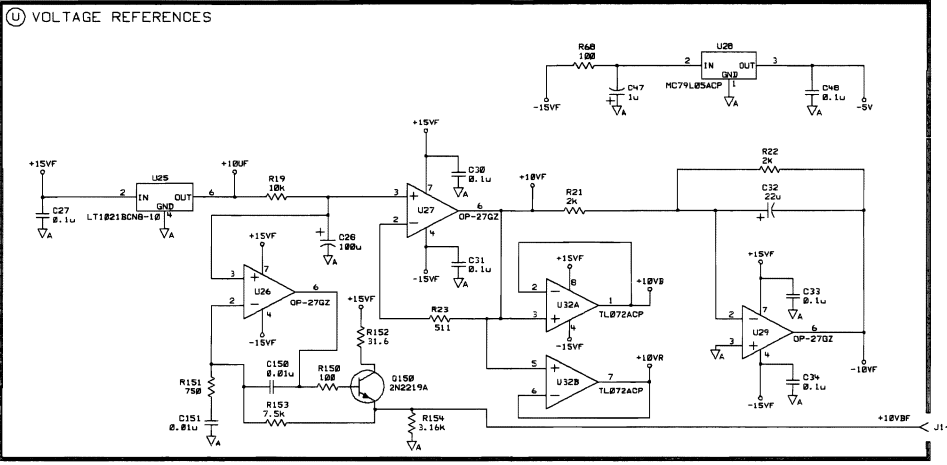
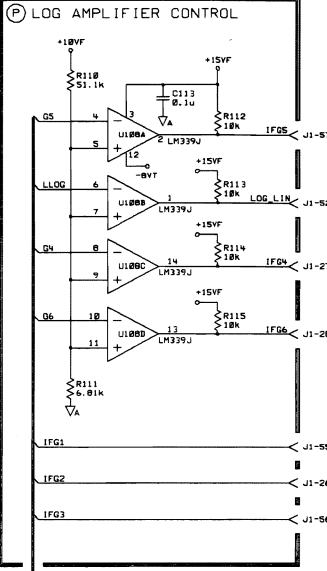
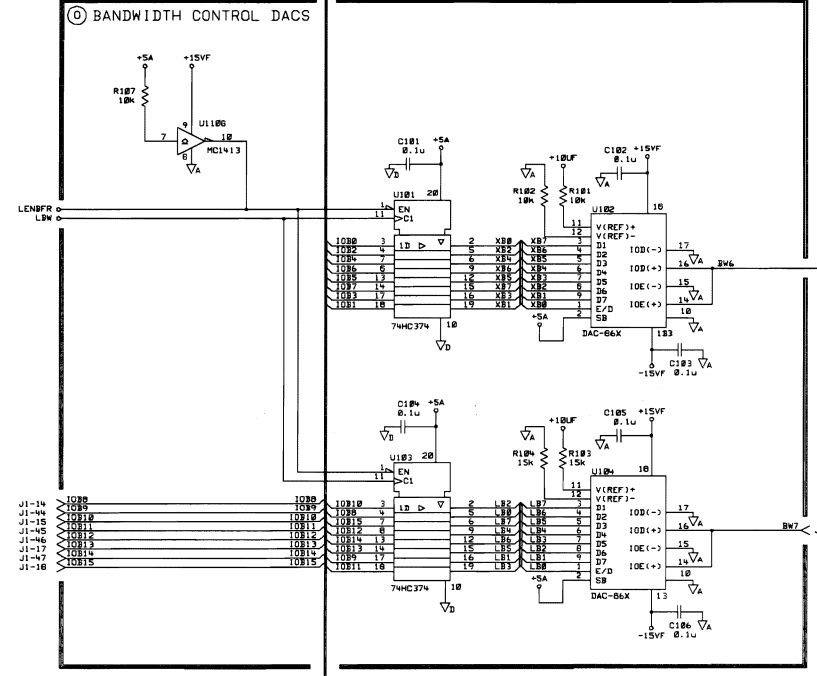
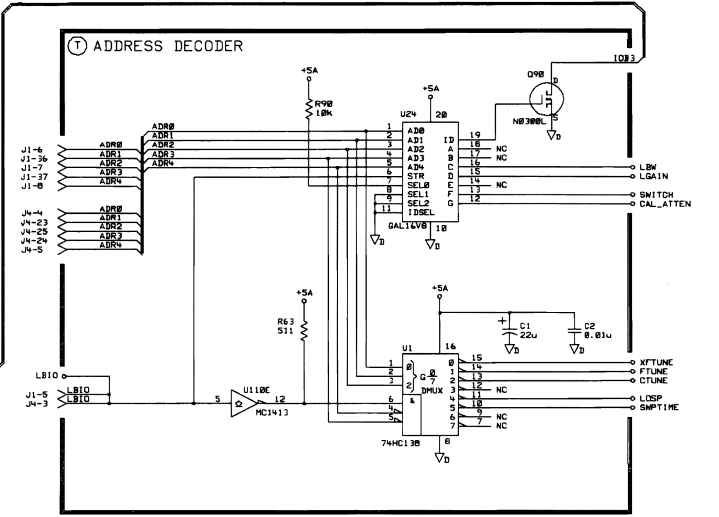
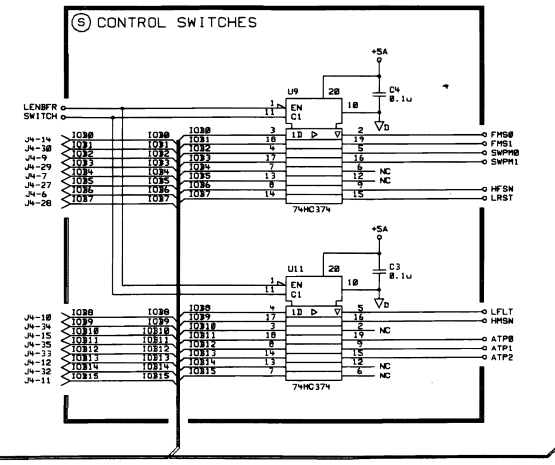
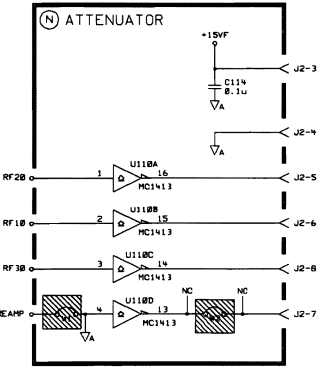
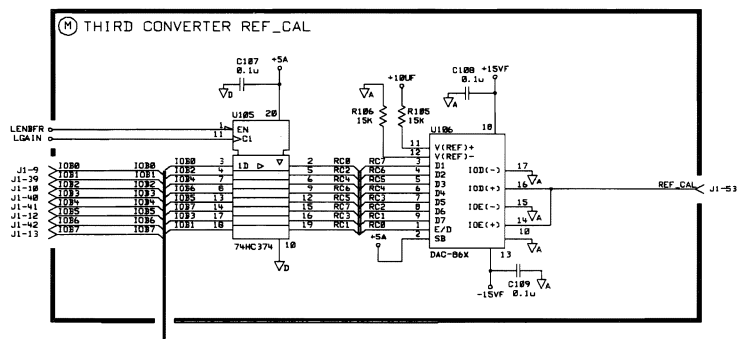
MNEMONIC	1	2
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ATP2	B	S
ATP3	B	S
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CTUNE	A	T
FINE_TUN	A	J
FMSW	C	S
FM_DRV	A	H
FM_TUNE	A	H
FTUNE	A	T
HF SW	I	S
HF SW	I	S
LB10	A	T
LB11	A	T
LB12	A	T
LB13	A	T
LB14	A	T
LB15	A	T
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**NOTES:**

- REFERENCE DESIGNATORS



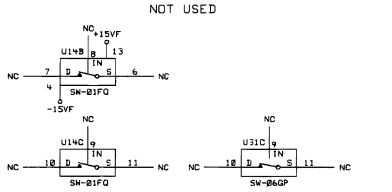
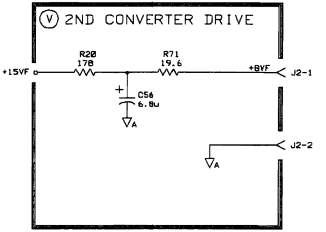
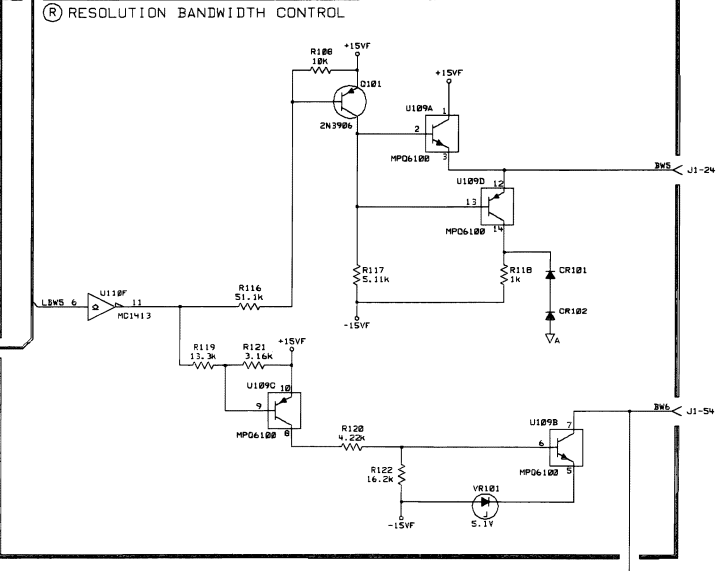
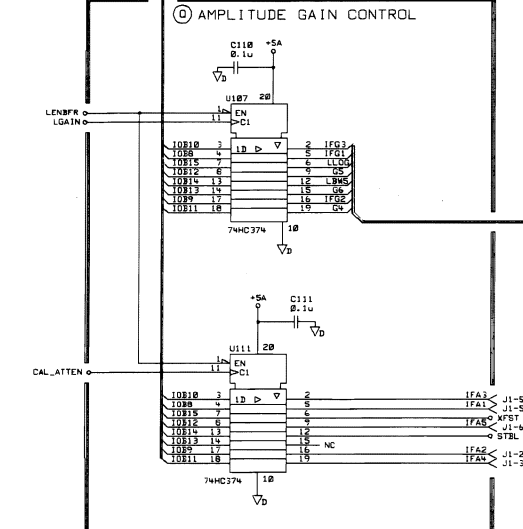
5300 GA 3123		D-08590-60197-1	
SYM	REVISIONS	APPROVED	DATE
E	REDRAWN PER PCO 53-09502		07-25-96
F	CHANGED PER PCO 53-10056 /QH		12-04-96
G	CHANGED U31, PCO 53-10272 /RS		04-21-97



NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATION.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH).  
 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION

HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW BOARD = 08590-28197



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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA ANALOG INTERFACE	s2abb197	FILENAME	HEWLETT PACKARD
	SCALE NONE		
	SHEET 2 OF 2	08590-60197	PART NUMBER
		D-08590-60197-1	TITLE

# **Component-Level Information Packet for 08591-60072**

## **Analog Interface**



**HP Part No. 08591-90121  
Printed in USA May 1997**

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**HP Part Number 08591-60072**  
**Analog Interface**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C4	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C5	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C6	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C7	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C8	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C9	0180-3636	1	CAP-FXD 330uF +-20% 35 V AL-ELCTLT	28480	0180-3636
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C11	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C14	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C15	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C18	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C19	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C20	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C21	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C22	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C23	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C24	0160-6223	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	28480	0160-6223
C25	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C26	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C27	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C28	0180-3817	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C31	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C32	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C33	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C34	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C35	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-5098	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	28480	0160-5098

*\*Indicates factory-selected value*

**CLIP 08591-90121 1**

**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C38	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C39	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C40	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C41	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C44	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C45	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C46	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C47	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C48	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C49	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C50	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C51	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C52	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C53	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C54	0160-5412	1	CAP-FXD 16pF +-5% 100 V CER C0G	28480	0160-5412
C55	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C56	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C57	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C61	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C62	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C63	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C64	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C101	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C102	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C103	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C106	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C107	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835

**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C111	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C114	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C150	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C151	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR4	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR5	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1252-2260	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2260
J3	1252-3106	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3106
J4	1252-1470	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1470
J5	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
L1	9100-1622	1	INDUCTOR RF-CH-MLD 24uH +-5%	28480	9100-1622
L2	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L3	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L5	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
MP3	1205-0639	1	HEAT SINK SGL TO-220-CS	07179	576802B03100
MP4	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP5	5021-8654	1	STANDOFF-RF	28480	5021-8654
MP6	5021-8657	1	NUT-STANDOFF	28480	5021-8657
MP7	0380-1242	1	STANDOFF-RVT-ON 20-MM-LG M3.0 X 0.5-THD	02121	
MP15	9320-6209	1	LBL-LNE-PTR; .65-IN-WD .2-IN-LG	02608	
MP150	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
Q1	1854-0456	1	TRANSISTOR NPN SI PD=65W FT=3MHZ	28480	1854-0456
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q4	1855-0686	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	28480	1855-0686
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q7	1855-0414	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	02237	
Q8	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	

*\*Indicates factory-selected value*

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**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q9	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q10	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q20	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q21	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q90	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q101	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q150	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
R1	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R2	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R3	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R4	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R5	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R6	0698-6344	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	28480	0698-6344
R7	0698-6323	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	28480	0698-6323
R8	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R9	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R10	0699-1909	1	RESISTOR 2.31K +0.1% .125W TF TC=0+-25	28480	0699-1909
R11	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R12	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R13	0698-8907	1	RESISTOR 320 +-0.25% .25W TF TC=0+-50	28480	0698-8907
R14	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R15	0757-1000	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	28480	0757-1000
R16	0757-1000	1	RESISTOR 51.1 +-1% .5W TF TC=0+-100	28480	0757-1000
R17	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R18	0698-6362	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	28480	0698-6362
R19	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-3334	1	RESISTOR 178 +-1% .5W TF TC=0+-100	28480	0698-3334
R21	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R23	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R24	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R25	0699-0400	1	RESISTOR 3.6K +0.1% .125W TF TC=0+-25	28480	0699-0400
R26	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R27	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R28	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280

**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R29	0699-0154	1	RESISTOR 7.2K +-0.1% .125W TF TC=0+-25	28480	0699-0154
R30	0699-1866	1	RESISTOR 2.7K +-0.1% .1W TF TC=0+-10	28480	0699-1866
R31	0699-1910	1	RESISTOR 691.2K +-0.1% .125W TF TC=0+-25	28480	0699-1910
R32	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R33	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R34	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R35	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R36	0757-1094	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	28480	0757-1094
R37	0699-0400	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	28480	0699-0400
R38	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R39	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R40	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R41	0699-2265	1	RESISTOR 200 +-0.1% .33W TF TC=0+-10	28480	0699-2265
R42	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R43	0698-3438	1	RESISTOR 147 +-1% .125W TF TC=0+-100	28480	0698-3438
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R47	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R48	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R49	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R50	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+-4	28480	0699-1147
R51	0699-0078	1	RESISTOR 2.1K +-0.1% .1W TF TC=0+-10	28480	0699-0078
R52	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R53	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R54	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R55	0698-6355	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0698-6355
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R58	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R59	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R60	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R61	0699-1910	1	RESISTOR 691.2K +-0.1% .125W TF TC=0+-25	28480	0699-1910
R63	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R64	0698-8838	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	28480	0698-8838

*\*Indicates factory-selected value*

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**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R65	0698-3942	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	28480	0698-3942
R66	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R67	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R68	0757-0198	1	RESISTOR 100 +-1% .5W TF TC=0+-100	28480	0757-0198
R69	0757-0477	1	RESISTOR 332K +-1% .125W TF TC=0+-100	28480	0757-0477
R70	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R71	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R72	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R73	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R80	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R81	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R82	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R83	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R90	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R102	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R103	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R104	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R105	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R106	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R107	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R111	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R112	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R113	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R116	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R117	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R118	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R119	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R120	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447

**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R150	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R151	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R152	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R153	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R154	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
TP1	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U3	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U4	1826-1386	1	D/A 12-BIT 18-PLASTIC CMOS	28480	1826-1386
U5	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U8	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U9	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U12	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U14	1826-0811	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U18	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U19	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-1461	1	IC OP AMP LOW-BIAS-H-IMPED 8 PIN DIP-P	28480	1826-1461
U21	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U25	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U26	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U27	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U28	1826-0285	1	IC PWR MGT-V-REG-FXD-NEG -4.8/-5.2V 3	28480	1826-0285
U29	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049

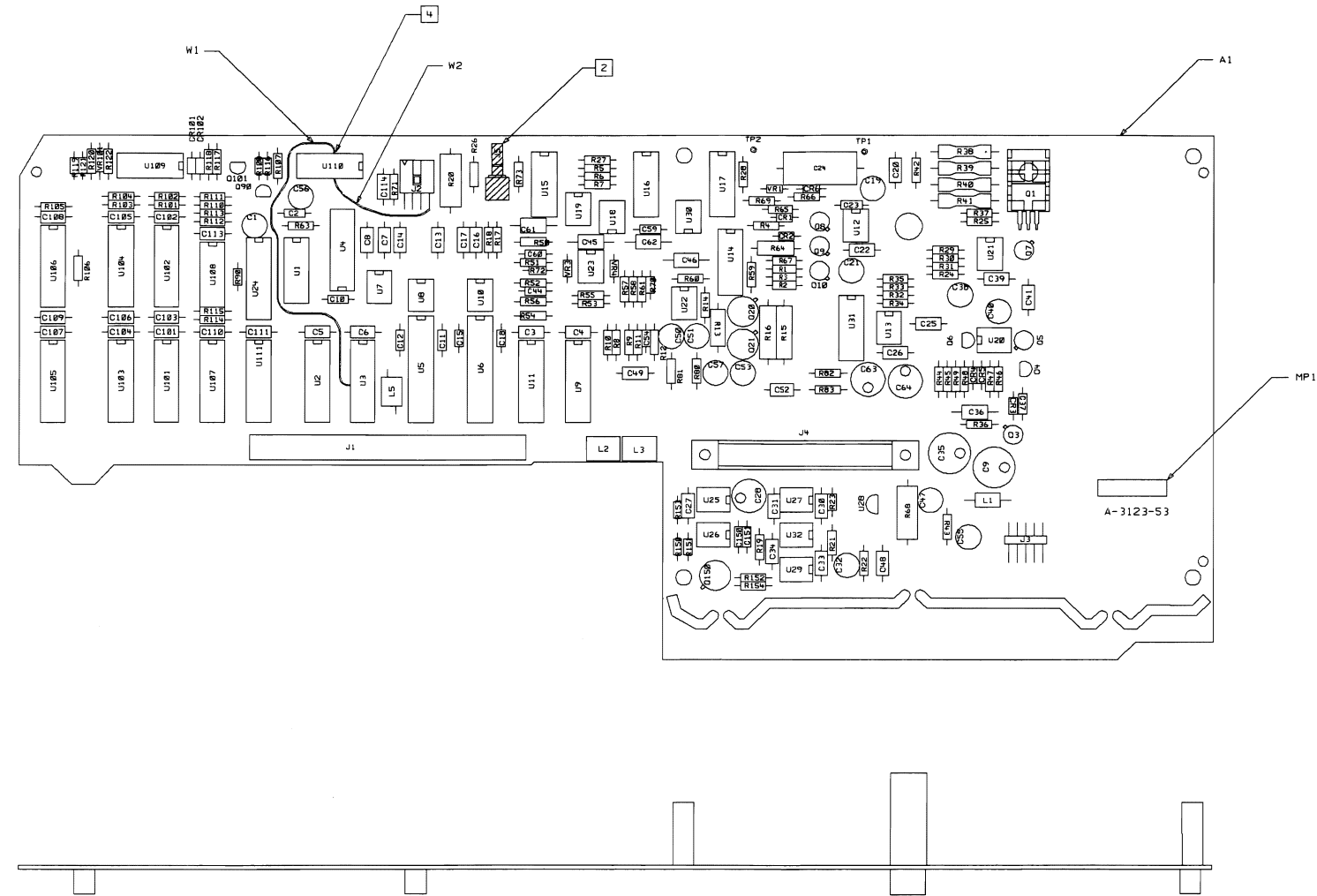
*\*Indicates factory-selected value*

**CLIP 08591-90121 7**

**HP Part Number 08591-60072**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U30	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U32	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0547
U101	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U102	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U104	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U106	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
U108	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1858-0047	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U111	1820-3565	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG OCTL	28480	1820-3565
VR1	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	02037	SZ30035-8
VR4	1902-0962	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02037	SZ30035-2
VR101	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
W1	8150-5022	1	WIRE 26AWG G KYNAR (PVF) 1X26 105C	28480	
W2	8150-5022	1	WIRE 26AWG G KYNAR (PVF) 1X26 105C	28480	

5300		D-08591-60072-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	KS	09-03-93



- NOTES: UNLESS OTHERWISE SPECIFIED
1. DIMENSIONS ARE IN INCHES.
  2. JS SHOWN FOR REFERENCE ONLY DO NOT LOAD
  3. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A7.
  4. THIS IS THE ONLY LEG THAT NEEDS TO BE PULLED UP.

SEE 08591-60072 MATERIAL LIST

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UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	09-03-93
DATE	
ENGINEER/CHECKER	09-03-93
DATE	
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
ANALOG  
INTERFACE BOARD

alaca072	HEWLETT PACKARD
FILENAME	
SCALE NONE	
SHEET 1 OF 1	08591-60072
PART NUMBER	
D-08591-60072-2	





# **Component-Level Information Packet for 08592-60108**

## **Analog Interface**



**HP Part No. 08592-90084  
Printed in USA June 1997**

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**HP Part Number 08592-60108**  
**Analog Interface**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C4	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C7	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C8	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C11	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C14	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C15	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C18	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C19	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C20	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C21	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C22	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C23	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C24	0160-6223	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	28480	0160-6223
C27	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C28	0180-3817	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C31	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C32	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C33	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C34	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C35	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C37	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C38	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C39	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C40	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C41	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835

\*Indicates factory-selected value

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**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C44	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C45	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C46	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C49	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C50	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C54	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C55	0180-3641	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C61	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C62	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C63	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C64	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C65	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C66	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C101	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C102	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C103	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C106	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C107	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C111	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C112	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C150	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C151	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C201	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C202	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C203	0160-5408	1	CAP-FXD 75pF +-5% 100 V CER C0G	28480	0160-5408
C204	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835

**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C205	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C206	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C207	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C208	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C209	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C210	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C211	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C301	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C302	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C303	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C304	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C305	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C306	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C307	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C308	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C309	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C310	0160-4682	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	28480	0160-4682
C311	0160-4682	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	28480	0160-4682
C312	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C313	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C314	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C315	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C316	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C317	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C318	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C319	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C320	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C321	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C407	0180-4316	1	CAP-FXD 220uF +-20% 50 V AL-ELCTLT	28480	0180-4316
C900	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C901	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C910	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2

\*Indicates factory-selected value

**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR4	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR5	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR201	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR202	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR203	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR301	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR302	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1252-2365	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2365
J3	1251-7683	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-7683
J4	1252-2008	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2008
J5	1252-2028	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2028
J6	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J24	1252-0500	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0500
J301	1252-2153	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2153
L1	9140-0245	1	INDUCTOR RF-CH-MLD 445mH +5%	28480	9140-0245
L2	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L3	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L4	9100-1641	1	INDUCTOR RF-CH-MLD 240uH +5%	28480	9100-1641
L5	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L6	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +5%	28480	9100-0539
L402	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
MP3	5002-1021	1	Z BRACKET	28480	5002-1021
MP4	0515-2141	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP5	5022-0097	1	STANDOFF-RF	28480	5022-0097
MP6	5021-8657	1	NUT-STANDOFF	28480	5021-8657
MP8	1205-0583	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP9	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP10	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP11	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP12	0340-0933	1	INSULATOR-FLG-BSHG PPS BLACK	02608	7721-3PPS
MP13	0535-0145	1	NUT-HEX LKG M2.5 X 0.45 2MM-THK 5MM-A/F	13483	

**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP14	0340-0949	1	INSULATOR-XSTR THRM-CNDCT	03976	60-11-5791-1674
MP15	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP16	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP17	1205-0478	1	HEAT SINK SGL TO-220-CS	02608	6071B
MP20	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
Q1	1855-0646	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0646
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q3	1855-0449	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	02237	
Q4	1855-0686	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	28480	1855-0686
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q8	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q9	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q10	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q20	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q21	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q92	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q202	1855-0292	1	TRANSISTOR J-FET 2N5432 N-CHAN D-MODE	02237	
Q301	1855-0517	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-220	28480	1855-0517
R1	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R2	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R3	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R4	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R5	0698-6343	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	28480	0698-6343
R6	0698-6344	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0698-6344
R7	0698-6323	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0698-6323
R8	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R9	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R10	0699-0517	1	RESISTOR 5.621K +-0.1% .1W TF TC=0+4	28480	0699-0517
R11	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R12	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R13	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R14	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R15	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394

\*Indicates factory-selected value

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**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R16	0757-0394	1	RESISTOR 51.1 +1% .125W TF TC=0+-100	28480	0757-0394
R17	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R18	0698-6362	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	28480	0698-6362
R19	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R21	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R23	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R24	0698-3904	1	RESISTOR 14.7K +0.1% .1W TF TC=0+-10	28480	0698-3904
R25	0699-1269	1	RESISTOR 2.31K +0.1% .1W TF TC=0+-10	28480	0699-1269
R26	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R27	0698-5362	1	RESISTOR 1.477K +-0.1% .1W TF TC=0+-5	28480	0698-5362
R28	0698-8831	1	RESISTOR 13.4K +0.1% .125W TF TC=0+-10	28480	0698-8831
R29	0699-0118	1	RESISTOR 20K +0.1% .1W TF TC=0+-5	28480	0699-0118
R30	0699-1146	1	RESISTOR 9.064K +-0.1% .1W TF TC=0+-4	28480	0699-1146
R31	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R32	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R33	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R34	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R35	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R36	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R37	0699-2109	1	RESISTOR 25K +0.1% .125W TF TC=0+-5	28480	0699-2109
R38	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R39	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R40	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R41	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R42	0698-6320	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	28480	0698-6320
R43	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R47	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R48	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R49	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R50	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+-4	28480	0699-1147

**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R51	0699-0078	1	RESISTOR 2.1K +0.1% .1W TF TC=0+-10	28480	0699-0078
R52	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R53	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R54	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R55	0698-6355	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0698-6355
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R58	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R59	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R60	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R61	0757-0460	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	28480	0757-0460
R64	0698-8838	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	28480	0698-8838
R65	0698-3942	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	28480	0698-3942
R66	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R67	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R69	0757-0477	1	RESISTOR 332K +-1% .125W TF TC=0+-100	28480	0757-0477
R70	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R72	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R80	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R81	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R90	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R102	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R103	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R104	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R105	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R106	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R107	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R111	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R112	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R113	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442

\*Indicates factory-selected value

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**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R116	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R117	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R118	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R119	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R120	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447
R150	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R151	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R152	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R153	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R154	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R201	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R202	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R203	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R205	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R206	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R207	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R208	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R209	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R210	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R211	0683-2015	1	RESISTOR 200 +-5% .25W CF TC=0-400	28480	0683-2015
R212	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R213	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R214	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R215	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R216	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R217	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R221	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R222	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R223	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R251	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R253	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R261	0811-1086	1	RESISTOR 47 +-5% 3W PWI TC=0+-30	28480	0811-1086
R262	0811-1086	1	RESISTOR 47 +-5% 3W PWI TC=0+-30	28480	0811-1086



**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R301	0698-6343	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	28480	0698-6343
R302	0698-6344	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0698-6344
R303	0698-6323	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0698-6323
R304	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R305	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	28480	0699-1147
R306	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R307	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R308	0699-1268	1	RESISTOR 1.395K +-0.1% .1W TF TC=0+-10	28480	0699-1268
R309	0698-7285	1	RESISTOR 110K +-1% .05W TF TC=0+-100	28480	0698-7285
R310	0698-6406	1	RESISTOR 8.54K +-0.1% .1W TF TC=0+4	28480	0698-6406
R311	0699-2623	1	RESISTOR 2.58K +-0.1% .125W TF TC=0+-25	28480	0699-2623
R312	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R313	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R314	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R315	0811-1084	1	RESISTOR 22 +-5% 3W PWI TC=0+-30	28480	0811-1084
R316	0698-3160	1	RESISTOR 31.6K +-1% .125W TF TC=0+-100	28480	0698-3160
R317	0698-8625	1	RESISTOR 1K +-0.1% .1W TF TC=0+-5	28480	0698-8625
R318	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R319	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R515	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R901	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R902	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
R903	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R910	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
TP1	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP3	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	1	IC DCDR-DEMURX CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U5	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U8	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U9	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082

\*Indicates factory-selected value

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**HP Part Number 08592-60108**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U12	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	1	NET-RES 5 1.0K OHM 6-SIP	28480	1810-0318
U14	1826-0811	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U18	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U19	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-1461	1	IC OP AMP LOW-BIAS-H-IMP 8 PIN DIP-P	28480	1826-1461
U21	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U25	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U26	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U27	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U29	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U32	1826-1461	1	IC OP AMP LOW-BIAS-H-IMP 8 PIN DIP-P	28480	1826-1461
U101	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U102	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U104	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U106	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U108	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1820-0471	1	IC DRVR TTL BUS HEX	02237	DM7406N
U111	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U201	1820-3146	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047
U203	1858-0077	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	FPQ2222P
U204	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U205	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934

**HP Part Number 08592-60108**  
**Analog Interface (continued)**

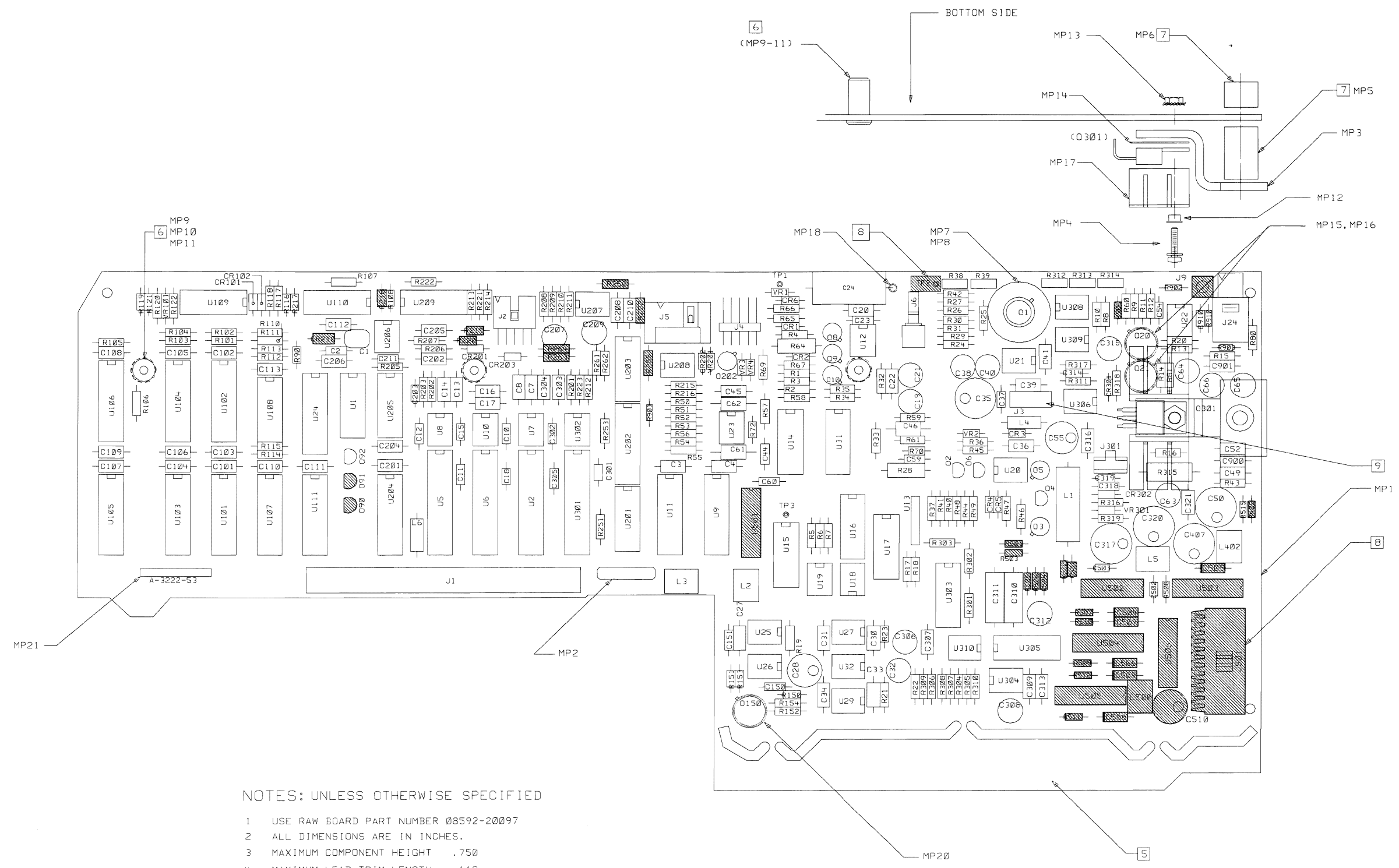
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U206	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U207	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U208	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U209	1858-0076	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	6339
U301	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U302	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U303	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U304	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U305	1826-0988	1	SAMPLE AND HOLD 14 -CERDIP	28480	1826-0988
U306	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U308	1810-1079	1	NETWORK-RES 8-DIP 10.0K OHM X 4	28480	1810-1079
U309	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U310	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR2	1902-0951	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	02037	SZ30035-9RL
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	02037	SZ30035-8
VR4	1902-0962	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02037	SZ30035-2
VR101	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
VR201	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR301	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579

\*Indicates factory-selected value

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**SCANS  
By  
Artek Media**

5300		D-08592-60108-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED DER PCO 53-09482		
B	CHANGED PER PCO 53-10056 /GH		



NOTES: UNLESS OTHERWISE SPECIFIED

- 1 USE RAW BOARD PART NUMBER 08592-20097
- 2 ALL DIMENSIONS ARE IN INCHES.
- 3 MAXIMUM COMPONENT HEIGHT .750
- 4 MAXIMUM LEAD TRIM LENGTH .118
- 5 REMOVE TABS AFTER MACHINE SOLDER.
- 6 MP9 THRU 11 ARE INSTALLED FROM BOTTOMSIDE OF BOARD. INSTALL AFTER MACHINE SOLDER.
- 7 MP5 AND MP6 ARE INSTALLED AFTER MACHINE SOLDER.
- 8 HATCHED COMPONENTS ARE NOT LOADED ON THIS ASSEMBLY.
- 9 REMOVE PIN 2 BEFORE INSTALLING CONNECTOR.

SEE 08592-60108 FOR MATERIAL LIST

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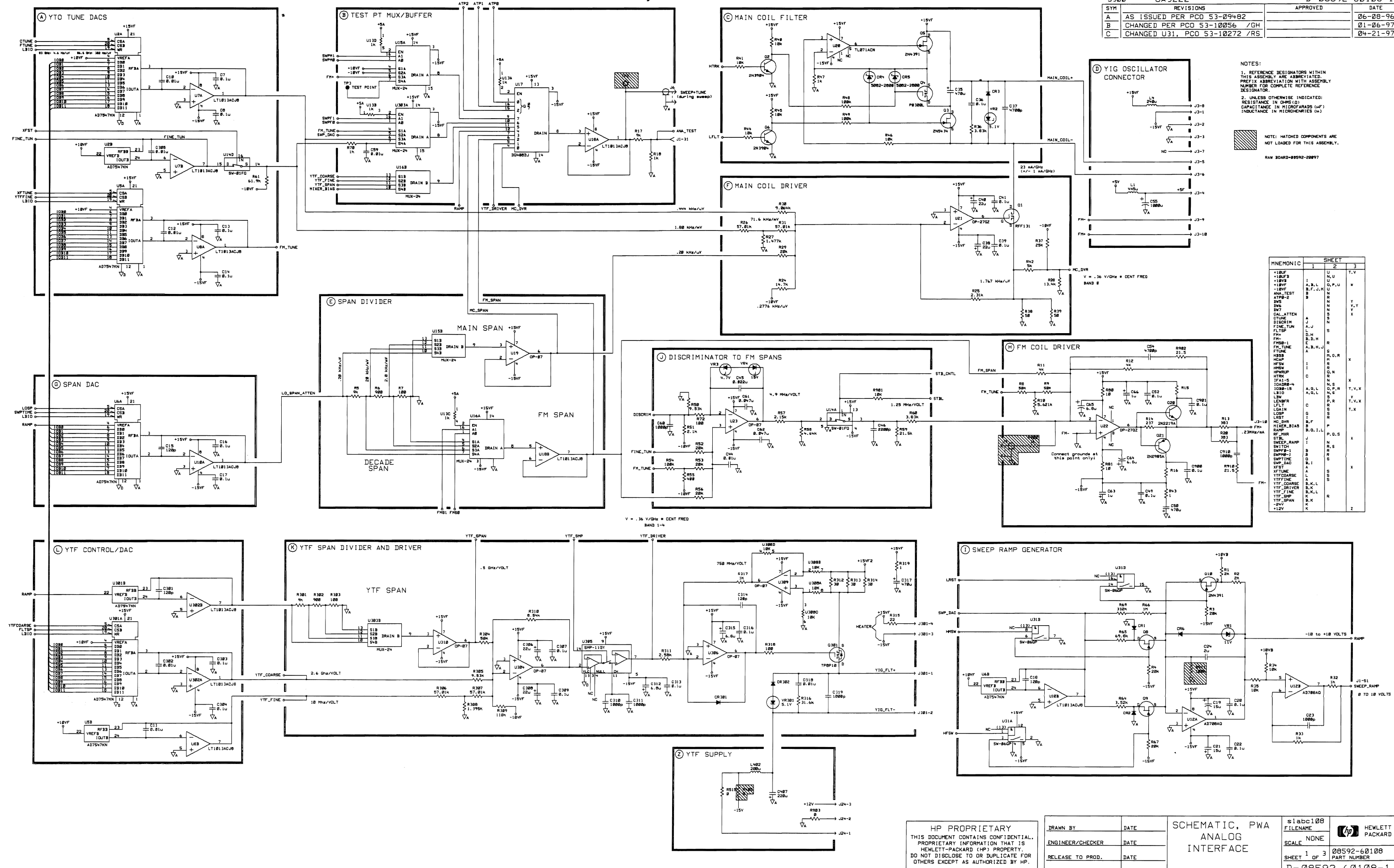
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
ANALOG  
INTERFACE

FILENAME	08592-60108
SCALE	NONE
SHEET 1 OF 1	PART NUMBER
D-08592-60108-2	

5300	CA 3222	D-08592-60108-1
REVISIONS		APPROVED
A	AS ISSUED PER PCO 53-09482	DATE
B	CHANGED PER PCO 53-10056 /GH	06-08-96
C	CHANGED U31, PCO 53-10272 /RS	01-06-97
		04-21-97



NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBERS FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH).

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW 30ARD3-88992-20897

MNEMONIC	SHEET		
	1	2	3
U1	U	U	T.V
U2	N	U	
U3	A,B,L	O,P,U	W
U4	B,F,J,K	U	
U5	N	N	
U6	N	N	
U7	N	N	
U8	N	N	
U9	N	N	
U10	N	N	
U11	N	N	
U12	N	N	
U13	N	N	
U14	N	N	
U15	N	N	
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U96	N	N	
U97	N	N	
U98	N	N	
U99	N	N	
U100	N	N	

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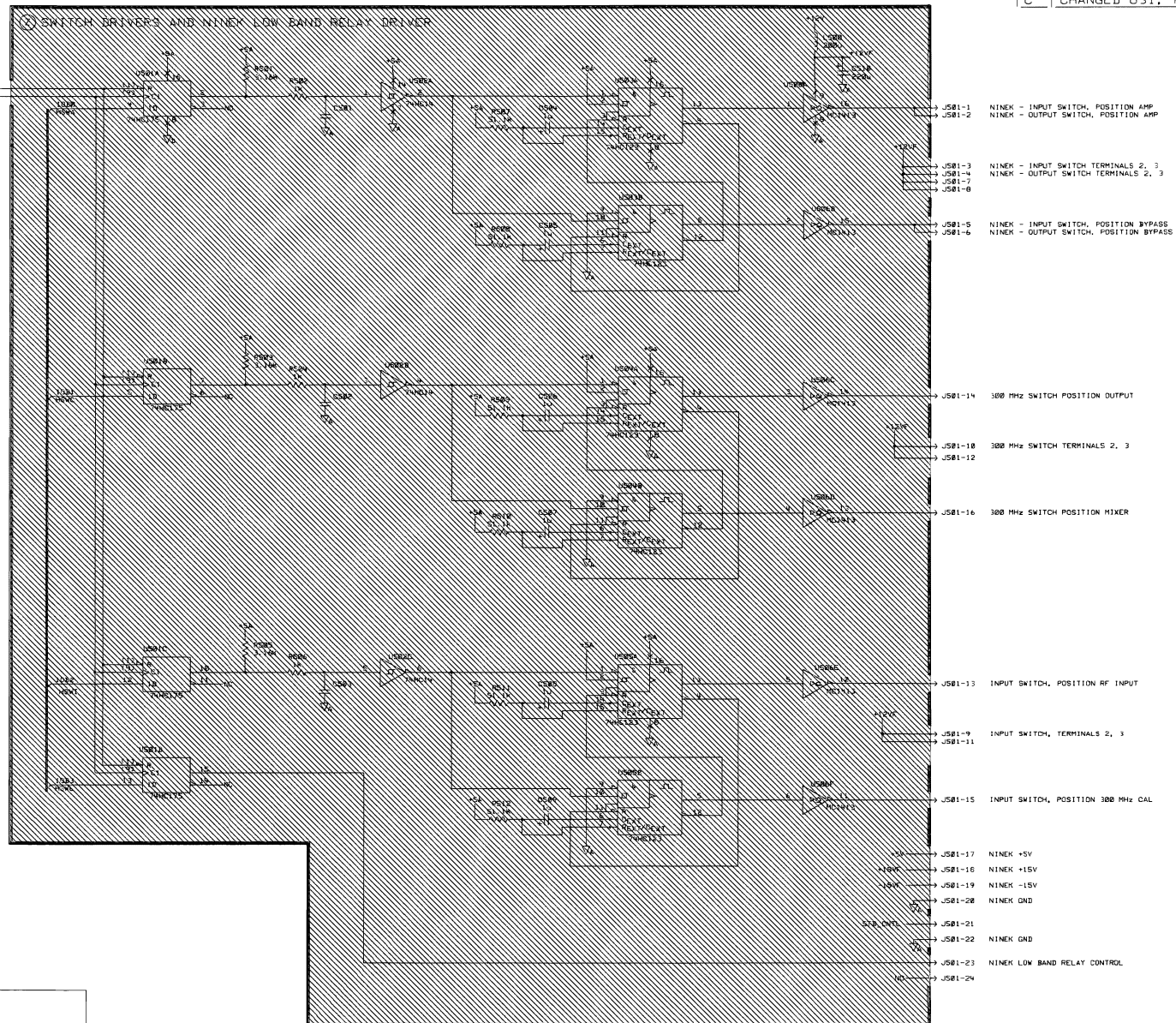
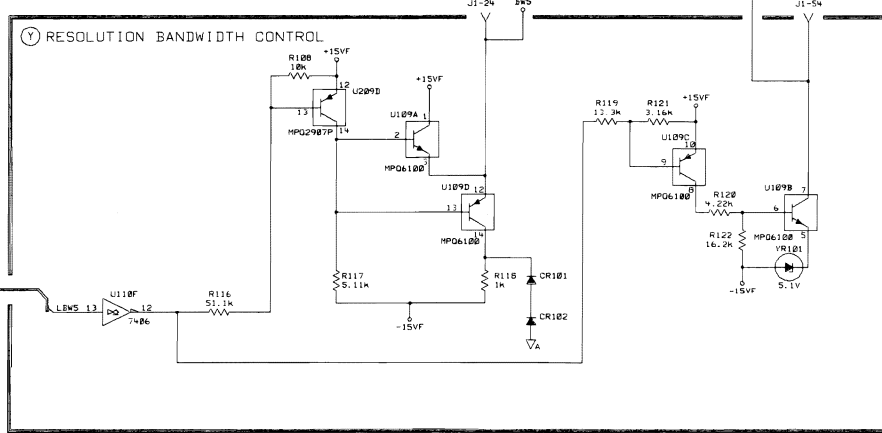
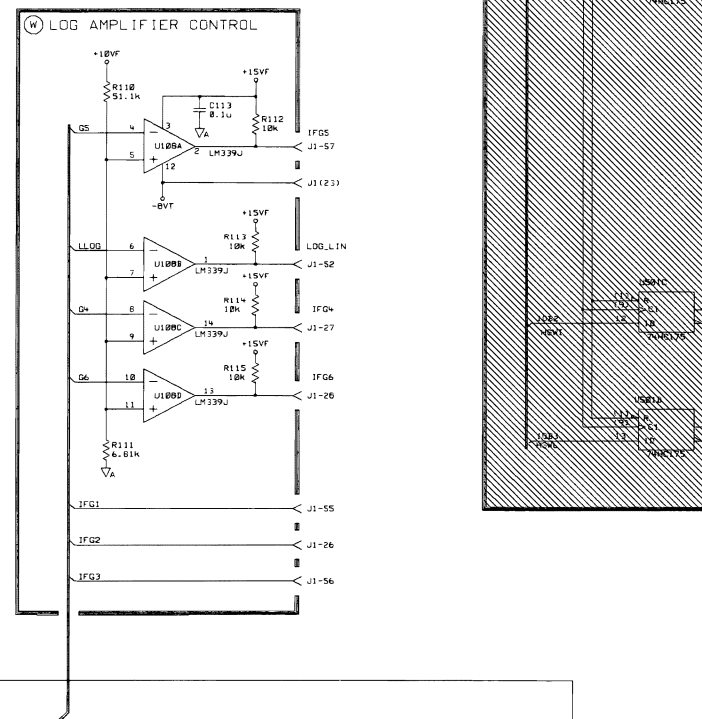
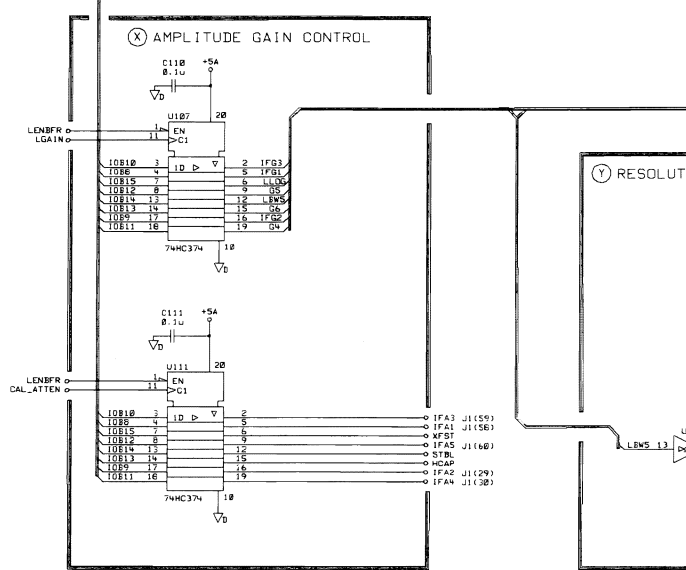
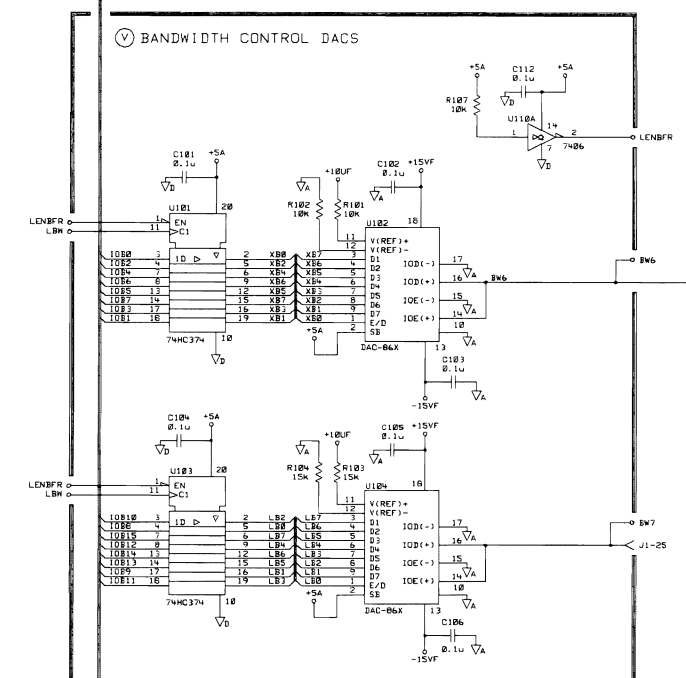
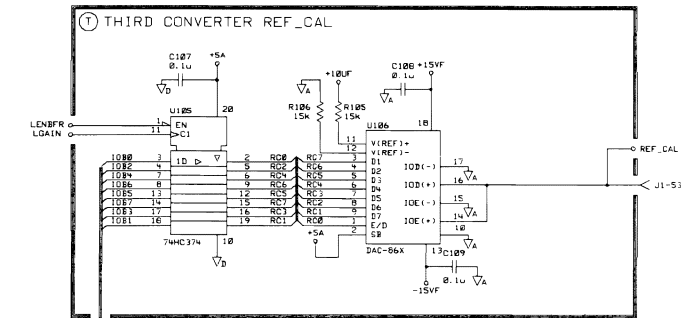
DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DMG.	

SCHEMATIC, PWA  
 ANALOG  
 INTERFACE

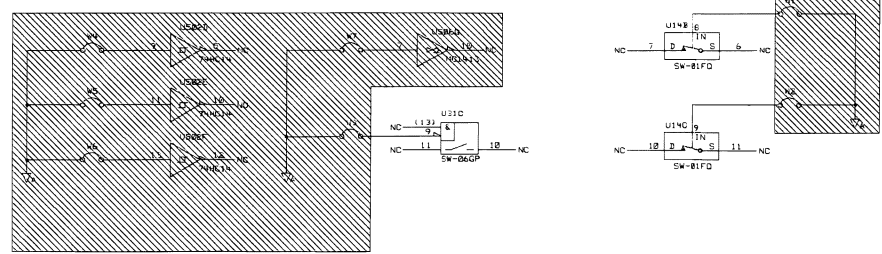
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SCALE	NONE	
SHEET	1 OF 3	08592-60108
		PART NUMBER
		D-08592-60108-1



5300 CA3222		D-08592-60108-1	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-09482		06-08-96
B	CHANGED PER PCO 53-10056 /GH		01-06-97
C	CHANGED U31, PCO 53-10272 /RS		04-21-97



UNUSED PACKAGES



MNEMONIC	1	2	3
+10UF	U		T, V
+10V8	N		U
+15V8	I		U
-15V	B, L, U		P, U, W
ANA_TEST	B		U
ATSP-2	B		J, K
BMS	N		V
BMS	N		N
BMS	N		V, Y
BMS	N		S
CAL_ATTEN	J		S
CTUNE	A		S
DISORIM	L		S
FINE_TUN	A, J		S
FLTSP	L		S
FM	D, H		S
FM-1	A, B, H, J		R
FM-2	A		S
HEB	A		S
HCAP	A		H, D, R
HFSW	I		R
HFSW	I		X
HPWRUP	I		G, N
HTNK	A		N
IFAI-S	C		N
IOADMB-4	A, G, L		N, S
IOB-15	A, G, L		N, S
LEB	A, G, L		N, S
LENBFR	C		V, X
LFIL	C		S
LOGP	C		S
LEST	I		S
MC_3DR	B, F		S
MIXER_BIAS	B		P
RAMP	B, G, I, L		S
REF_10R	J		X
STBL	J		X
SWEEP_RAMP	J		X
SWITCH	N		R, S
SWP-1	B		R
SWP-2	B		R
SWP_DAC	B		R
XTST	K		X
XTUNE	A		S
YTCORSE	A		S
YTFINE	A		S
YTF_COARSE	B, K, L		R
YTF_DRIVER	B, K, L		R
YTF_FINE	B, K, L		R
YTF_SWP	K		R
YTF_SPAN	B, K		R
-24V	K		Z
+12V	K		Z

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED PER THE ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW EQIBD = 08512-08097

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHMATIC, PWA ANALOG INTERFACE

s3abc108	FILENAME	HEWLETT PACKARD
SCALE NONE		
SHEET 3 OF 3	08592-60108	PART NUMBER
	D-08592-60108-1	



# **Component-Level Information Packet for 08594-60030**

## **Analog Interface**



**HP Part No. 08594-90035  
Printed in USA May 1997**

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**HP Part Number 08594-60030**  
**Analog Interface**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C4	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C7	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C8	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C14	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C15	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C18	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C19	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C20	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C21	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C22	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C23	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C24	0160-6223	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	28480	0160-6223
C27	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C28	0180-3817	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C31	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C32	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C33	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C34	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C35	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C37	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C38	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C39	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C40	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C41	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C44	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832

*\*Indicates factory-selected value*

**CLIP 08594-90035 10**

**HP Part Number 08594-60030**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C45	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C46	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C49	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C50	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C54	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C55	0180-3641	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C61	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C62	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C63	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C64	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C65	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C66	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C101	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C102	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C103	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C106	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C107	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C111	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C112	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C150	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C151	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C305	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C317	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C900	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C901	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C910	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574

**HP Part Number 08594-60030**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR4	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR5	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR210	1901-0734	1	DIODE-PWR RECT 1N5818 30V 1A	28480	1901-0734
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J3	1251-7683	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-7683
J4	1252-2008	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2008
J5	1252-2028	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2028
J6	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
L1	9140-0245	1	INDUCTOR RF-CH-MLD 445mH +-5%	28480	9140-0245
L2	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L3	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L4	9100-1641	1	INDUCTOR RF-CH-MLD 240uH +-5%	28480	9100-1641
L6	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
MP5	5021-8672	1	STANDOFF-RF	28480	5021-8672
MP6	5021-8657	1	NUT-STANDOFF	28480	5021-8657
MP8	1205-0583	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP9	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP10	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP11	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP15	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP16	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP20	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
Q1	1855-0646	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0646
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q3	1855-0449	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	02237	
Q4	1855-0686	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	28480	1855-0686
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q8	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	

*\*Indicates factory-selected value*

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**HP Part Number 08594-60030**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q9	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q10	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q20	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q21	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q91	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
R1	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R2	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R3	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R4	0698-6630	1	RESISTOR 20K +0.1% .125W TF TC=0+-25	28480	0698-6630
R5	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R6	0698-6344	1	RESISTOR 900 +0.1% .125W TF TC=0+-25	28480	0698-6344
R7	0698-6323	1	RESISTOR 100 +0.1% .125W TF TC=0+-25	28480	0698-6323
R8	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R9	0698-6353	1	RESISTOR 50K +0.1% .125W TF TC=0+-25	28480	0698-6353
R10	0699-0517	1	RESISTOR 5.621K +0.1% .1W TF TC=0+4	28480	0699-0517
R11	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R12	0698-6322	1	RESISTOR 4K +0.1% .125W TF TC=0+-25	28480	0698-6322
R13	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R14	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R15	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R16	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R17	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R18	0698-6362	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	28480	0698-6362
R19	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R21	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R23	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R24	0698-3904	1	RESISTOR 14.7K +0.1% .1W TF TC=0+-10	28480	0698-3904
R25	0699-1269	1	RESISTOR 2.31K +0.1% .1W TF TC=0+-10	28480	0699-1269
R26	0699-0936	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	28480	0699-0936
R27	0698-5362	1	RESISTOR 1.477K +0.1% .1W TF TC=0+-5	28480	0698-5362
R28	0698-8831	1	RESISTOR 13.4K +0.1% .125W TF TC=0+-10	28480	0698-8831
R29	0699-0118	1	RESISTOR 20K +0.1% .1W TF TC=0+-5	28480	0699-0118

**HP Part Number 08594-60030  
Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R30	0699-1146	1	RESISTOR 9.064K +-0.1% .1W TF TC=0+4	28480	0699-1146
R31	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R32	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R33	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R34	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R35	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R36	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R37	0699-2109	1	RESISTOR 25K +-0.1% .125W TF TC=0+-5	28480	0699-2109
R38	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R39	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R40	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R41	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R42	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R43	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R47	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R48	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R49	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R50	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	28480	0699-1147
R51	0699-0078	1	RESISTOR 2.1K +-0.1% .1W TF TC=0+-10	28480	0699-0078
R52	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R53	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R54	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R55	0698-6355	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0698-6355
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R58	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R59	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R60	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R61	0757-0460	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	28480	0757-0460
R64	0698-8838	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	28480	0698-8838
R65	0698-3942	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	28480	0698-3942
R66	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827

*\*Indicates factory-selected value*

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**HP Part Number 08594-60030**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R67	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R69	0757-0477	1	RESISTOR 332K +-1% .125W TF TC=0+-100	28480	0757-0477
R70	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R72	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R80	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R81	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R90	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R102	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R103	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R104	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R105	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R106	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R107	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R111	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R112	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R113	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R116	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R117	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R118	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R119	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R120	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447
R150	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R151	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R152	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R153	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R154	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R218	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R219	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260



**HP Part Number 08594-60030**  
**Analog Interface (continued)**

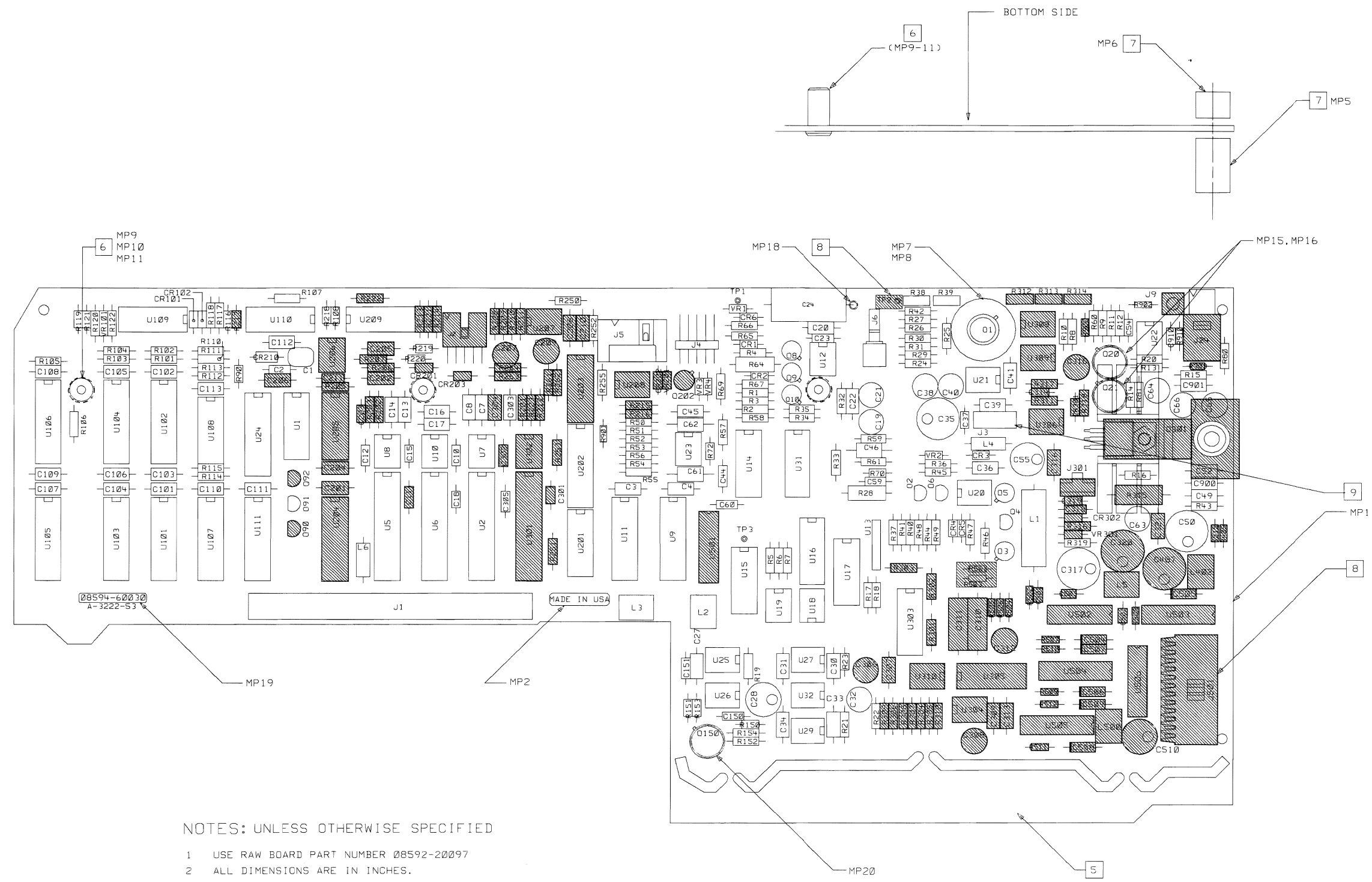
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R220	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R250	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R252	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R255	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R319	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R901	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R902	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
R910	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
TP1	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP3	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U5	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U8	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U9	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U12	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	1	NET-RES 5 1.0K OHM 6-SIP	28480	1810-0318
U14	1826-0811	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U18	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U19	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-1461	1	IC OP AMP LOW-BIAS-H-IMPD 8 PIN DIP-P	28480	1826-1461
U21	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U25	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U26	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U27	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049

*\*Indicates factory-selected value*

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**HP Part Number 08594-60030**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U29	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U32	1826-1461	1	IC OP AMP LOW-BIAS-H-IMP 8 PIN DIP-P	28480	1826-1461
U101	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U102	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U104	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U106	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U108	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1820-0471	1	IC DRVR TTL BUS HEX	02237	DM7406N
U111	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U201	1820-3146	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047
U209	1858-0076	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	6339
U303	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
VR1	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR2	1902-0951	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	02037	SZ30035-9RL
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	02037	SZ30035-8
VR4	1902-0962	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02037	SZ30035-2
VR101	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579



NOTES: UNLESS OTHERWISE SPECIFIED

- 1 USE RAW BOARD PART NUMBER 08592-20097
- 2 ALL DIMENSIONS ARE IN INCHES.
- 3 MAXIMUM COMPONENT HEIGHT .750
- 4 MAXIMUM LEAD TRIM LENGTH .118
- 5 REMOVE TABS AFTER MACHINE SOLDER.
- 6 MP9 THRU 11 ARE INSTALLED FROM BOTTOMSIDE OF BOARD. INSTALL AFTER MACHINE SOLDER.
- 7 MP6 AND MP6 ARE INSTALLED AFTER MACHINE SOLDER.
- 8 HATCHED COMPONENTS ARE NOT LOADED ON THIS ASSEMBLY.
- 9 REMOVE PIN 2 BEFORE INSTALLING CONNECTOR.

SEE 08594-60030 FOR MATERIAL LIST

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UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

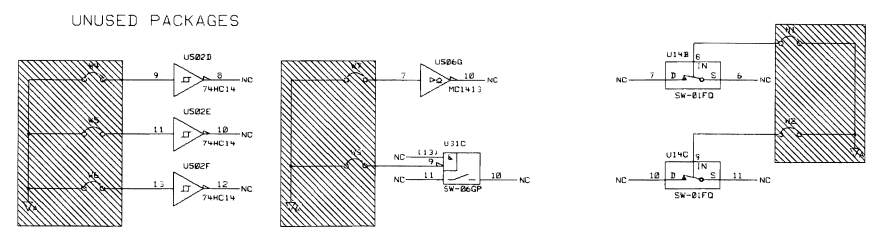
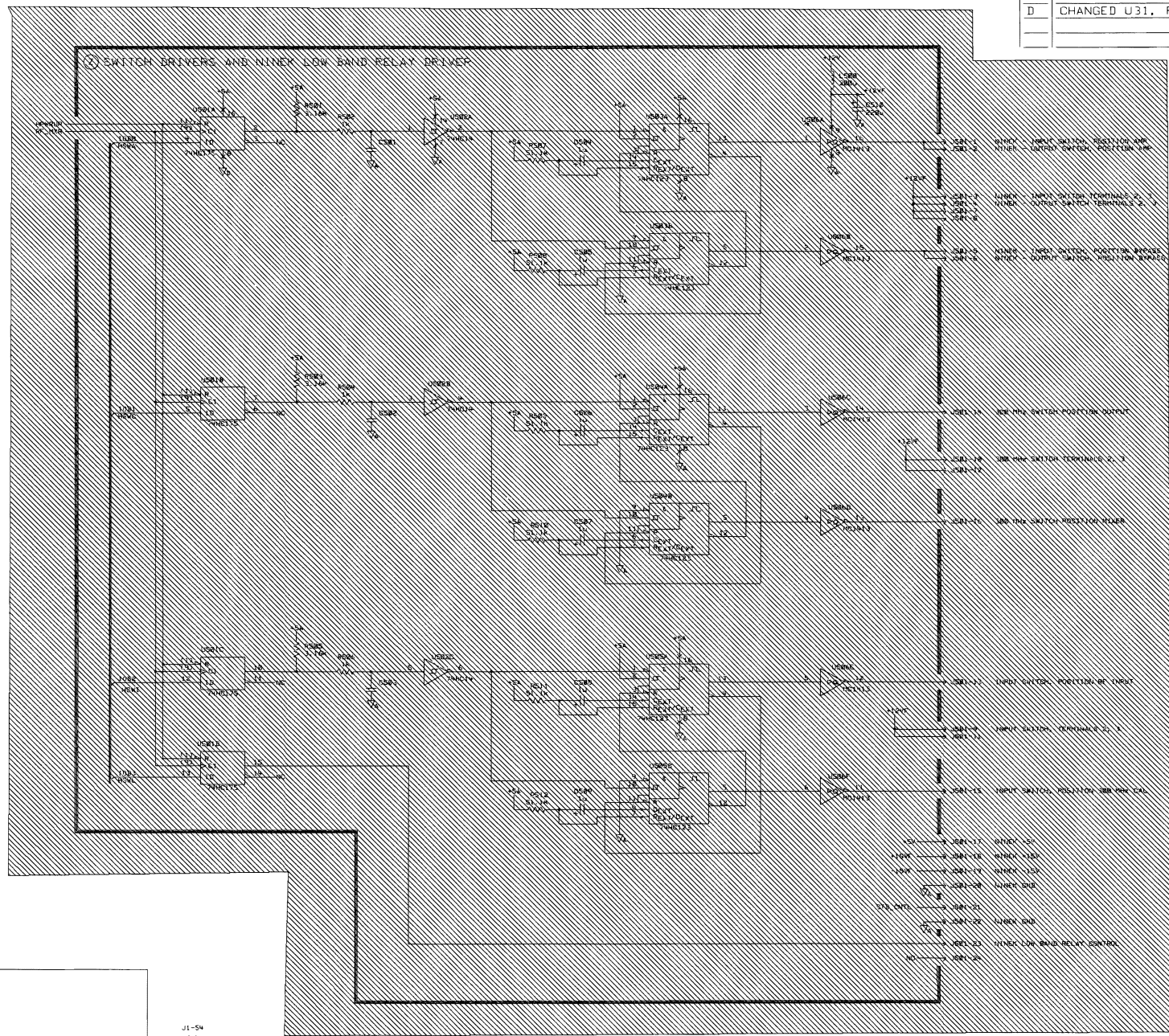
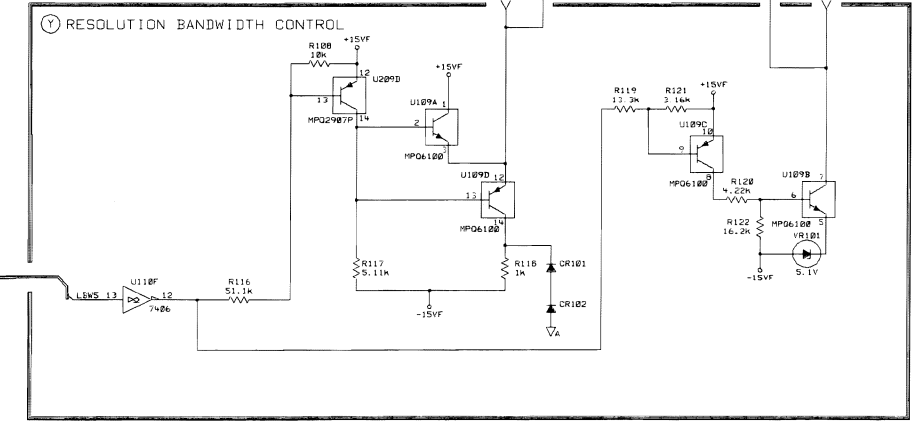
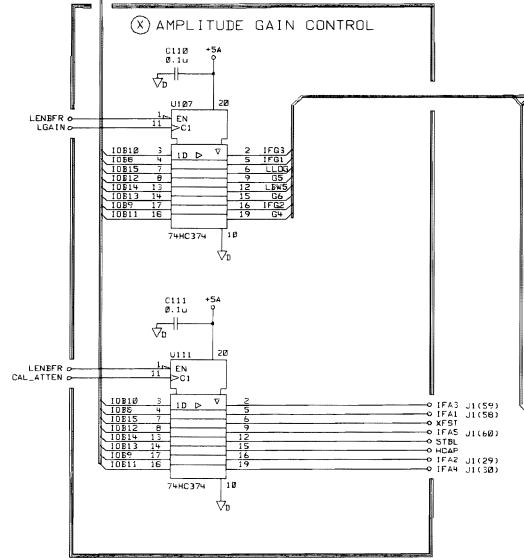
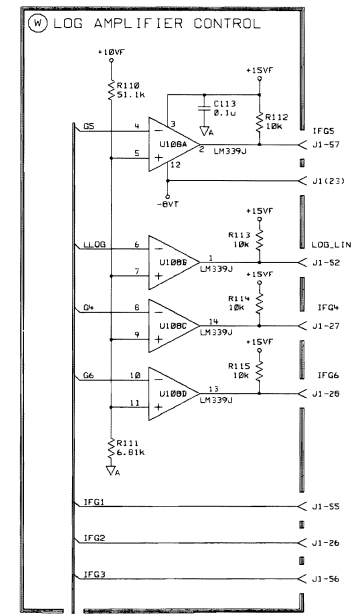
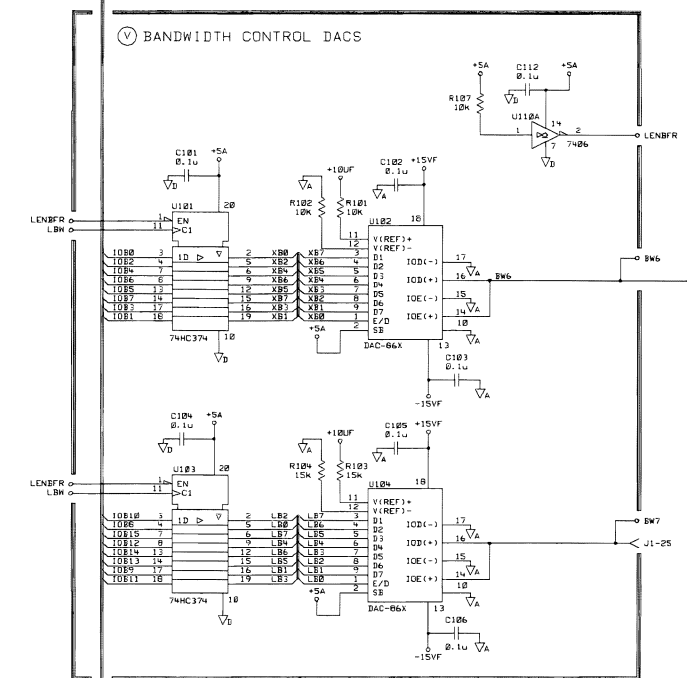
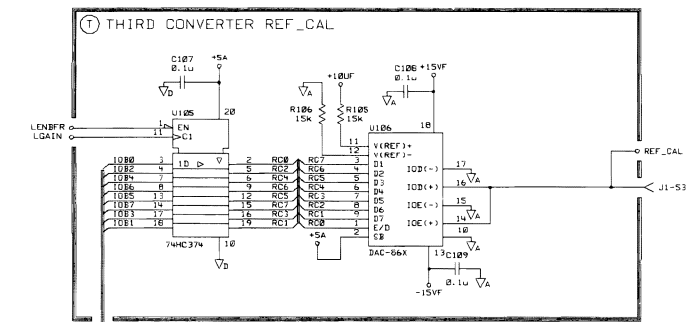
ASSEMBLY, PWB  
ANALOG  
INTERFACE

FILENAME	08594-60030
SCALE	NONE
SHEET 1 OF 1	08594-60030
PART NUMBER	D-08594-60030-2
TITLE	









MNEMONIC	SHEET		
	1	2	3
+10V	U		T, V
+15V	U		N, U
+18V	I	A, B, L	Q, P, U
-10V	B	S, F, V, K	W
AMP REST	B	N	V
ATFG-2	B	N	V
BMS	B	N	V, Y
BW	B	N	V, Y
CAL ATTEN	B	N	V, Y
CTUNE	A	S	X
DISCRIM	J	N	
FINE TUN	A, J	S	
FLTP	L	S	
FM+	D, H	S	
FM-	B, D, H	S	
FMSB-1	E	R	
FF TIME	A, S, H, J	S	
FTIME	A	S	
HEB	M, O, R	X	
HEAP	I	R	
HFOW	I	R	X
HPK	I	R	
HPWRUP	D, N	S	
IF50	C	N	X
IFAI-5	N	S	X
IF50B-4	N, S		
IOBB-15	A, G, L	Q, P, R	T, V, X
LEB	A, G, L	N, S	
LENFR	P, R	S	T, V, X
LFT	C	R	
LGAIN	G	S	T, X
LOSP	I	R	
MC DR	B, F	R	
MIXER BIAS	S	P, D, S	
RAMP	B, G, I, L		
RF MSR	J		
SLEEP_RAMP	J	N, S	X
SMITCH	I	R, S	
SWEEP-1	B	R	
SWPTIME	B	R	
SWP_DAC	B, I	S	
TEST	B	S	X
VFTIME	A	S	
VTFGEAR	S, K, L		
VTFDRIVER	B, K, L		
VTF TIME	B, K, L		
VTF_SWP	R		
-2V	B, K		
+12V	K	Z	

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW BOARD - 08592-20097

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
 ANALOG  
 INTERFACE

s3acj030	FILENAME	HEWLETT PACKARD
SCALE	NONE	
SHEET 3 OF 3	08594-60030	PART NUMBER
D-08594-60030-1		

# **Component-Level Information Packet for 08595-60022**

## **Analog Interface**



**HP Part No. 08595-90031  
Printed in USA May 1997**

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**HP Part Number 08595-60022**  
**Analog Interface**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C4	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C7	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C8	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C11	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C14	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C15	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C18	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C19	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C20	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C21	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C22	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C23	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C24	0160-6223	1	CAP-FXD 2uF +-5% 100 V POLYP-MET	28480	0160-6223
C27	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C28	0180-3817	1	CAP-FXD 100uF +-20% 50 V AL-ELCTLT	28480	0180-3817
C30	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C31	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C32	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C33	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C34	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C35	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C36	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C37	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C38	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C39	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C40	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C41	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835

*\*Indicates factory-selected value*

**CLIP 08595-90031 1**

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C44	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C45	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C46	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C49	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C50	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C52	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C54	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C55	0180-3641	1	CAP-FXD 1000uF +-20% 10 V AL-ELCTLT	28480	0180-3641
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C61	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C62	0160-4834	1	CAP-FXD 0.047uF +-10% 100 V CER X7R	28480	0160-4834
C63	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C64	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C65	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C66	0180-3771	1	CAP-FXD 1uF +-10% 35 V TA	28480	0180-3771
C101	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C102	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C103	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C106	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C107	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C111	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C112	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C150	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C151	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C201	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C202	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C203	0160-5408	1	CAP-FXD 75pF +-5% 100 V CER C0G	28480	0160-5408
C204	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C205	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C206	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C207	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C208	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C209	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C210	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C211	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C301	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C302	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C303	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C304	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C305	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C306	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C307	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C308	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C309	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C310	0160-4682	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	28480	0160-4682
C311	0160-4682	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	28480	0160-4682
C312	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C313	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C314	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C315	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C316	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C317	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C318	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C319	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C320	0180-3643	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3643
C321	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C407	0180-4316	1	CAP-FXD 220uF +-20% 50 V AL-ELCTLT	28480	0180-4316
C900	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C901	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C910	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2

*\*Indicates factory-selected value*

**CLIP 08595-90031 3**

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR4	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR5	1901-0518	1	DIODE-SCHOTTKY SM SIG	28480	1901-0518
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR202	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR210	1901-0734	1	DIODE-PWR RECT 1N5818 30V 1A	28480	1901-0734
CR301	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR302	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1252-2365	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2365
J3	1251-7683	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-7683
J4	1252-2008	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2008
J5	1252-2028	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2028
J6	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J301	1252-2153	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2153
L1	9140-0245	1	INDUCTOR RF-CH-MLD 445mH +-5%	28480	9140-0245
L2	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L3	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L4	9100-1641	1	INDUCTOR RF-CH-MLD 240uH +-5%	28480	9100-1641
L5	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L6	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L402	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
MP3	5002-1021	1	Z BRACKET	28480	5002-1021
MP4	0515-2141	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP5	5022-0097	1	STANDOFF-RF	28480	5022-0097
MP6	5021-8657	1	NUT-STANDOFF	28480	5021-8657
MP8	1205-0583	1	HEAT SINK SGL TO-5/TO-39-CS	02608	2215B-SS1
MP9	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP10	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP11	0380-1842	1	STANDOFF-RVT-ON 8-MM-LG M3.0 X 0.5-THD	02121	
MP12	0340-0933	1	INSULATOR-FLG-BSHG PPS BLACK	02608	7721-3PPS
MP13	0535-0145	1	NUT-HEX LKG M2.5 X 0.45 2MM-THK 5MM-A/F	13483	
MP14	0340-0949	1	INSULATOR-XSTR THRM-CNDCT	03976	60-11-5791-1674
MP15	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP16	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP17	1205-0478	1	HEAT SINK SGL TO-220-CS	02608	6071B
MP20	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
Q1	1855-0646	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0646
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q3	1855-0449	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	02237	
Q4	1855-0686	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-92 SI	28480	1855-0686
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q8	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q9	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q10	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q20	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q21	1853-0314	1	TRANSISTOR PNP 2N2905A SI TO-39 PD=400MW	28480	1853-0314
Q91	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q92	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q150	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q202	1855-0292	1	TRANSISTOR J-FET 2N5432 N-CHAN D-MODE	02237	
Q301	1855-0517	1	TRANSISTOR MOSFET P-CHAN E-MODE TO-220	28480	1855-0517
R1	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R2	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R3	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R4	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R5	0698-6343	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	28480	0698-6343
R6	0698-6344	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0698-6344
R7	0698-6323	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0698-6323
R8	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R9	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R10	0699-0517	1	RESISTOR 5.621K +-0.1% .1W TF TC=0+4	28480	0699-0517
R11	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R12	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R13	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R14	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R15	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R16	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394

*\*Indicates factory-selected value*

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**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R17	0698-6343	1	RESISTOR 9K +0.1% .125W TF TC=0+-25	28480	0698-6343
R18	0698-6362	1	RESISTOR 1K +0.1% .125W TF TC=0+-25	28480	0698-6362
R19	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R21	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6624	1	RESISTOR 2K +0.1% .125W TF TC=0+-25	28480	0698-6624
R23	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R24	0698-3904	1	RESISTOR 14.7K +0.1% .1W TF TC=0+-10	28480	0698-3904
R25	0699-1269	1	RESISTOR 2.31K +0.1% .1W TF TC=0+-10	28480	0699-1269
R26	0699-0936	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	28480	0699-0936
R27	0698-5362	1	RESISTOR 1.477K +-0.1% .1W TF TC=0+-5	28480	0698-5362
R28	0698-8831	1	RESISTOR 13.4K +0.1% .125W TF TC=0+-10	28480	0698-8831
R29	0699-0118	1	RESISTOR 20K +0.1% .1W TF TC=0+-5	28480	0699-0118
R30	0699-1146	1	RESISTOR 9.064K +-0.1% .1W TF TC=0+4	28480	0699-1146
R31	0699-0936	1	RESISTOR 57.014K +0.1% .1W TF TC=0+-5	28480	0699-0936
R32	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R33	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R34	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R35	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R36	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R37	0699-2109	1	RESISTOR 25K +0.1% .125W TF TC=0+-5	28480	0699-2109
R38	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R39	0699-1825	1	RESISTOR 50 +-1% .3W MF TC=0+-5	28480	0699-1825
R40	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R41	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R42	0698-6320	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	28480	0698-6320
R43	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R47	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R48	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R49	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R50	0699-1147	1	RESISTOR 9.53K +0.1% .1W TF TC=0+4	28480	0699-1147
R51	0699-0078	1	RESISTOR 2.1K +0.1% .1W TF TC=0+-10	28480	0699-0078

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R52	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R53	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R54	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R55	0698-6355	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0698-6355
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R58	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R59	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R60	0698-3153	1	RESISTOR 3.83K +-1% .125W TF TC=0+-100	28480	0698-3153
R61	0757-0460	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	28480	0757-0460
R64	0698-8838	1	RESISTOR 3.52K +-0.1% .125W TF TC=0+-10	28480	0698-8838
R65	0698-3942	1	RESISTOR 69.8K +-0.1% .125W TF TC=0+-25	28480	0698-3942
R66	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R67	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R69	0757-0477	1	RESISTOR 332K +-1% .125W TF TC=0+-100	28480	0757-0477
R70	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R72	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R80	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R81	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R90	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R102	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R103	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R104	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R105	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R106	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R107	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R111	0757-0439	1	RESISTOR 6.81K +-1% .125W TF TC=0+-100	28480	0757-0439
R112	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R113	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R116	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277

*\*Indicates factory-selected value*

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**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R117	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	28480	0757-0438
R118	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R119	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R120	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447
R150	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R151	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R152	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R153	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R154	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R201	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R202	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R203	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R205	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R206	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R207	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R208	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R209	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R210	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R211	0683-2015	1	RESISTOR 200 +-5% .25W CF TC=0-400	28480	0683-2015
R212	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R213	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R214	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R215	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R216	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R217	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R218	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R219	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R220	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R221	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R222	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R223	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R250	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R252	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587



**HP Part Number 08595-60022  
Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R261	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R262	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R263	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R264	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R301	0698-6343	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	28480	0698-6343
R302	0698-6344	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0698-6344
R303	0698-6323	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0698-6323
R304	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R305	0699-1147	1	RESISTOR 9.53K +-0.1% .1W TF TC=0+4	28480	0699-1147
R306	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R307	0699-0936	1	RESISTOR 57.014K +-0.1% .1W TF TC=0+-5	28480	0699-0936
R308	0699-1268	1	RESISTOR 1.395K +-0.1% .1W TF TC=0+-10	28480	0699-1268
R309	0698-7285	1	RESISTOR 110K +-1% .05W TF TC=0+-100	28480	0698-7285
R310	0698-6406	1	RESISTOR 8.54K +-0.1% .1W TF TC=0+4	28480	0698-6406
R311	0699-2623	1	RESISTOR 2.58K +-0.1% .125W TF TC=0+-25	28480	0699-2623
R312	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R313	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R314	0699-1823	1	RESISTOR 30 +-1% .3W MF TC=0+-5	28480	0699-1823
R315	0811-1084	1	RESISTOR 22 +-5% 3W PWI TC=0+-30	28480	0811-1084
R316	0698-3160	1	RESISTOR 31.6K +-1% .125W TF TC=0+-100	28480	0698-3160
R317	0698-8625	1	RESISTOR 1K +-0.1% .1W TF TC=0+-5	28480	0698-8625
R318	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R319	0698-8812	1	RESISTOR 1 +-1% .125W TF TC=0+-100	28480	0698-8812
R405	0811-3587	1	RESISTOR 0 CWM	28480	0811-3587
R901	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R902	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
R910	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196
TP1	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP3	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U2	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U5	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U8	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436

*\*Indicates factory-selected value*

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**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U9	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U12	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U13	1810-0318	1	NET-RES 5 1.0K OHM 6-SIP	28480	1810-0318
U14	1826-0811	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0811
U15	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U16	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U17	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U18	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U19	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U20	1826-1461	1	IC OP AMP LOW-BIAS-H-IMP 8 PIN DIP-P	28480	1826-1461
U21	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U22	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U23	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U24	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U25	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U26	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U27	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U29	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U31	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U32	1826-1461	1	IC OP AMP LOW-BIAS-H-IMP 8 PIN DIP-P	28480	1826-1461
U101	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U102	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U103	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U104	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U105	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U106	1826-1253	1	D/A 18-CERDIP BPLR	28480	1826-1253
U107	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U108	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U109	1858-0074	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0074
U110	1820-0471	1	IC DRVR TTL BUS HEX	02237	DM7406N
U111	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U201	1820-3146	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U202	1820-5047	1	IC-INTERFACE DRVR BIPOLAR DISPLAY HIGH	28480	1820-5047

**HP Part Number 08595-60022**  
**Analog Interface (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U203	1858-0077	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	FPQ2222P
U204	1820-3082	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3082
U205	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U206	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U207	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U208	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U209	1858-0076	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	6339
U301	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U302	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U303	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610
U304	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U305	1826-0988	1	SAMPLE AND HOLD 14 -CERDIP	28480	1826-0988
U306	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U308	1810-1079	1	NETWORK-RES 8-DIP 10.0K OHM X 4	28480	1810-1079
U309	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U310	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR2	1902-0951	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	02037	SZ30035-9RL
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	02037	SZ30035-8
VR4	1902-0962	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.087%	02037	SZ30035-2
VR101	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
VR201	1902-0959	1	DIODE-ZNR 11V 5% DO-35 PD=.4W TC=+.076%	02037	SZ30035-1
VR301	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579

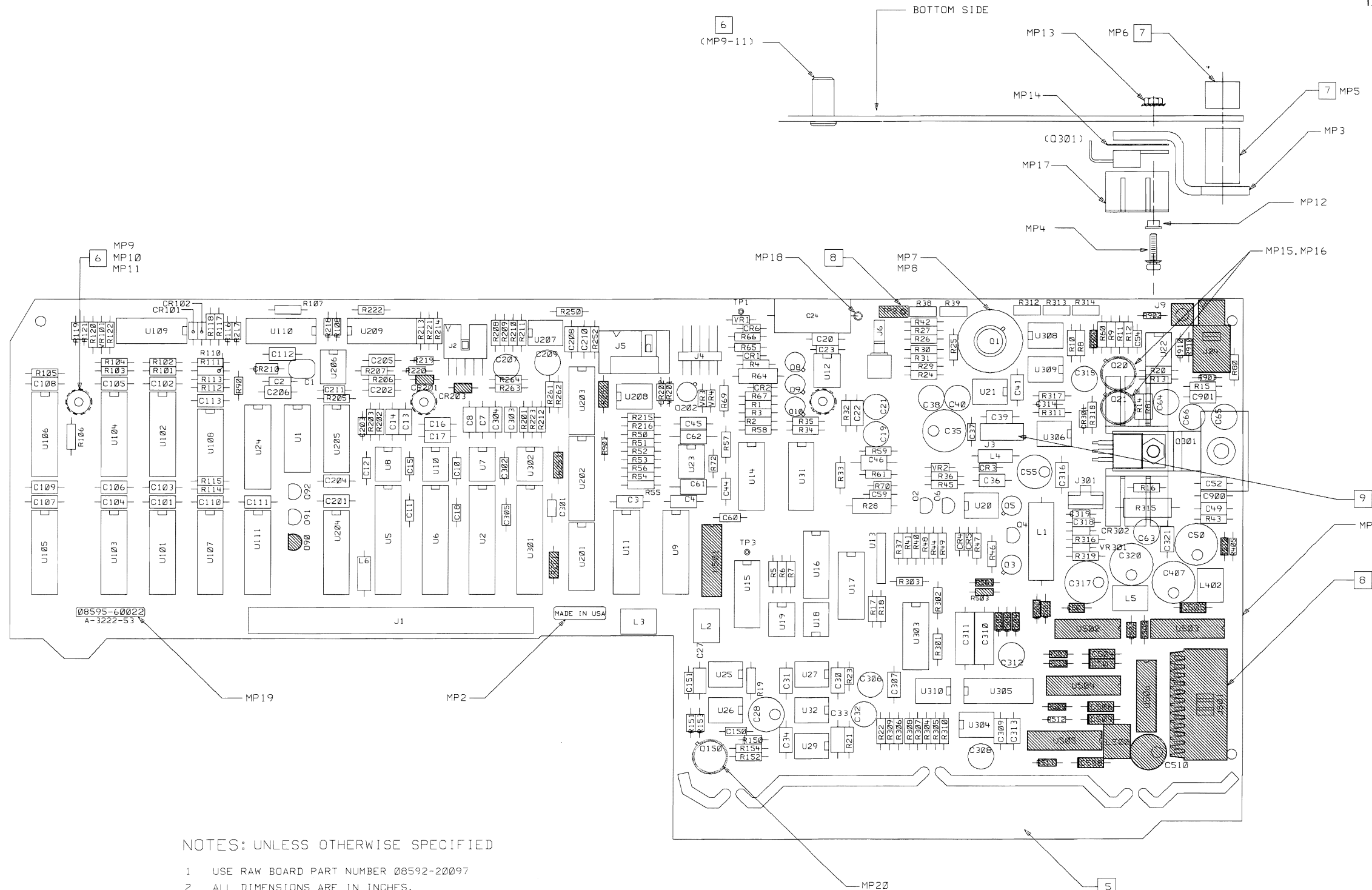
*\*Indicates factory-selected value*

**CLIP 08595-90031 11**

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**SCANS  
By  
Artek Media**

S300		D-08595-60022-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07456		
B	CHANGED PER PCO 53-10056 /GH		



NOTES: UNLESS OTHERWISE SPECIFIED

- 1 USE RAW BOARD PART NUMBER 08592-20097
- 2 ALL DIMENSIONS ARE IN INCHES.
- 3 MAXIMUM COMPONENT HEIGHT .750
- 4 MAXIMUM LEAD TRIM LENGTH .116
- 5 REMOVE TABS AFTER MACHINE SOLDER.
- 6 MP9 THRU 11 ARE INSTALLED FROM BOTTOMSIDE OF BOARD. INSTALL AFTER MACHINE SOLDER.
- 7 MP5 AND MP6 ARE INSTALLED AFTER MACHINE SOLDER.
- 8 HATCHED COMPONENTS ARE NOT LOADED ON THIS ASSEMBLY.
- 9 REMOVE PIN 2 BEFORE INSTALLING CONNECTOR.

SEE 08595-60022 FOR MATERIAL LIST

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OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

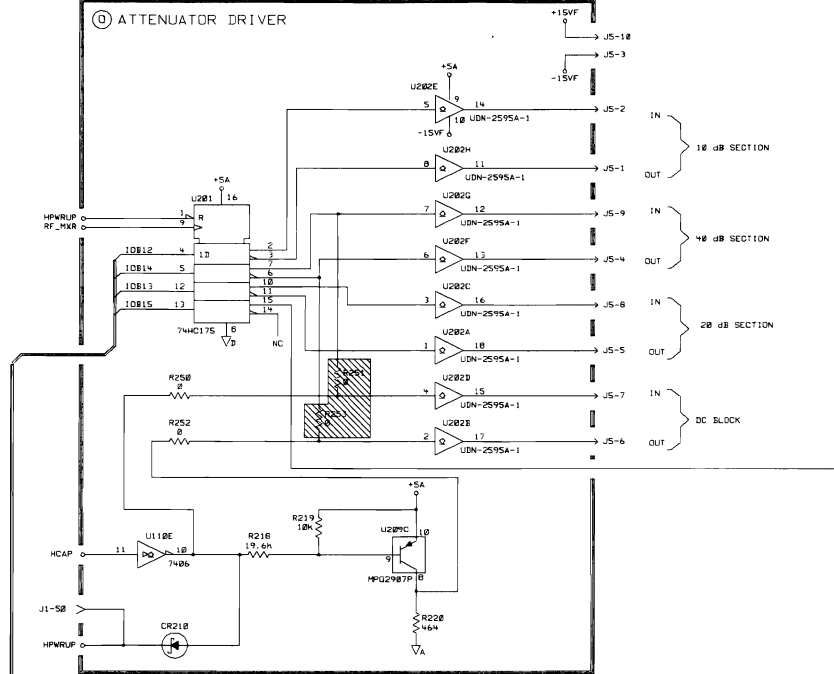
ASSEMBLY, PWB  
ANALOG  
INTERFACE  
TITLE

alacy022 FILENAME	HEWLETT PACKARD
SCALE NONE	08595-60022 PART NUMBER
SHEET 1 OF 1	D-08595-60022-2

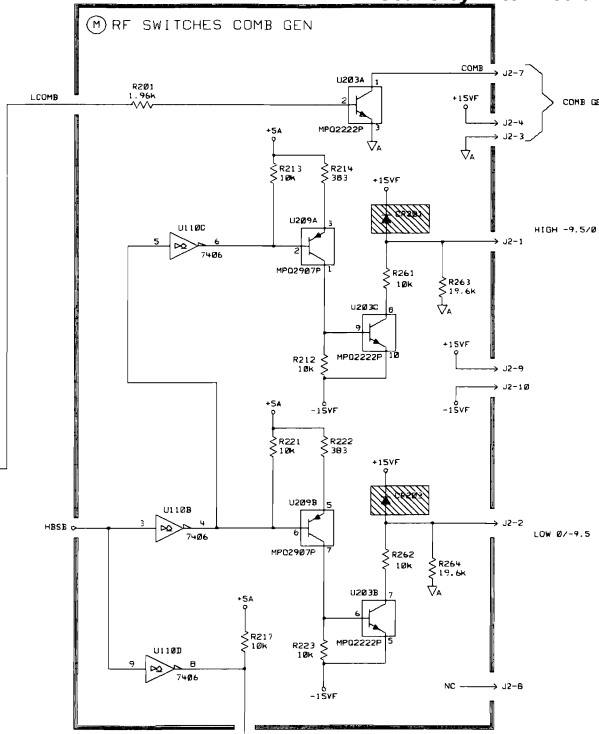


S300	DA 3222	D-08595-60022-1
REVISIONS		APPROVED
SYM	CHANGED U31, PCD 53-10272 /RS	DATE
		04-21-97

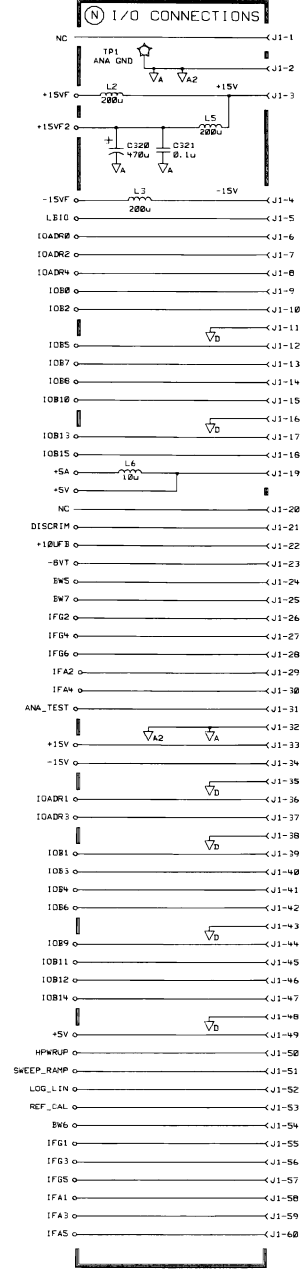
ATTENUATOR DRIVER



RF SWITCHES COMB GEN

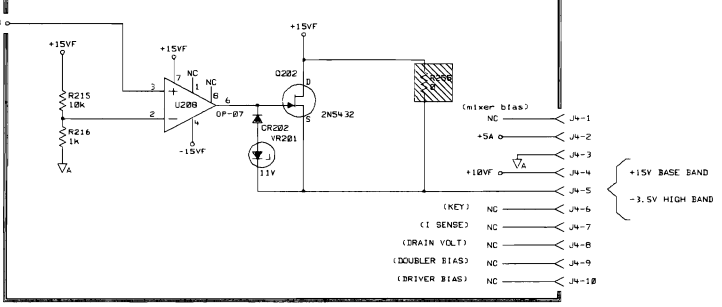


I/O CONNECTIONS

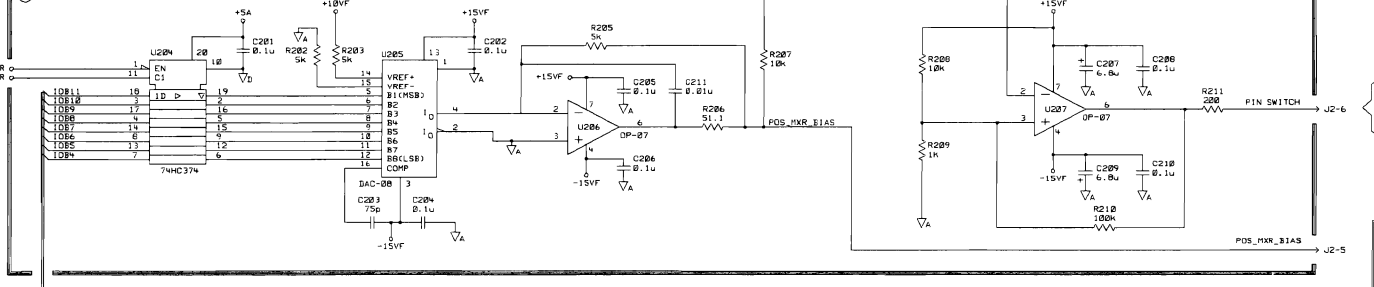


PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC	2N	
2	ADN	2N	
3	IF1	2N	
4	+15V	2N	
5	POS MIX BIAS	2N	
6	COMB	2N	
7	COMB	2N	
8	+15VF	2N	
9	-15VF	2N	
10	DISCRIM	2N	
11	NC	2N	
12	ANAL_TEST	2N,U	
13	IF2	2N	
14	IF3	2N	
15	IF4	2N	
16	IF5	2N	
17	IF6	2N	
18	IF7	2N	
19	IF8	2N	
20	IF9	2N	
21	IF10	2N	
22	IF11	2N	
23	IF12	2N	
24	IF13	2N	
25	IF14	2N	
26	IF15	2N	
27	IF16	2N	
28	IF17	2N	
29	IF18	2N	
30	IF19	2N	
31	IF20	2N	
32	IF21	2N	
33	IF22	2N	
34	IF23	2N	
35	IF24	2N	
36	IF25	2N	
37	IF26	2N	
38	IF27	2N	
39	IF28	2N	
40	IF29	2N	
41	IF30	2N	
42	IF31	2N	
43	IF32	2N	
44	IF33	2N	
45	IF34	2N	
46	IF35	2N	
47	IF36	2N	
48	IF37	2N	
49	IF38	2N	
50	IF39	2N	
51	IF40	2N	
52	IF41	2N	
53	IF42	2N	
54	IF43	2N	
55	IF44	2N	
56	IF45	2N	
57	IF46	2N	
58	IF47	2N	
59	IF48	2N	
60	IF49	2N	
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62	IF51	2N	
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66	IF55	2N	
67	IF56	2N	
68	IF57	2N	

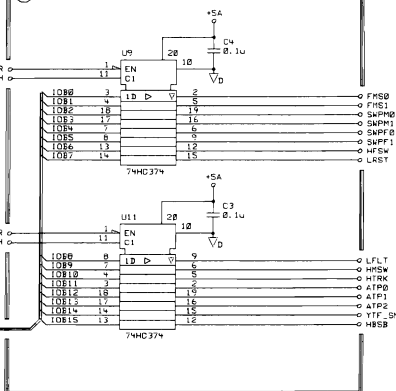
SECOND CONVERTER DRIVER



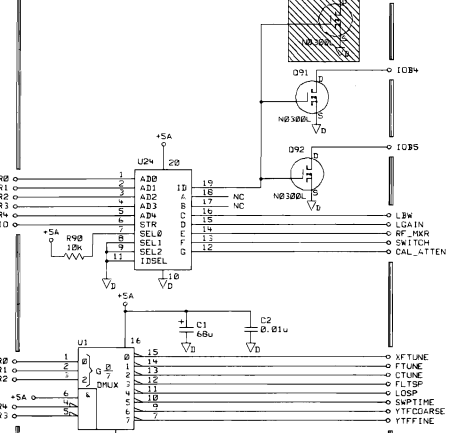
FIRST CONVERTER DRIVER



CONTROL SWITCHES

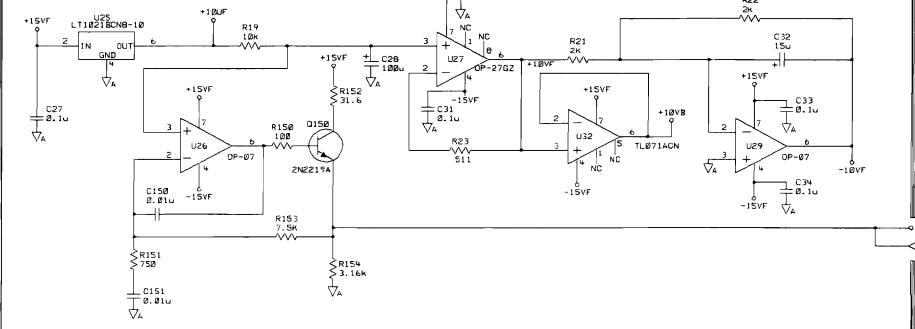


ADDRESS DECODER & ID



UNIT	D92	D91	D90
0590/01	B175	B174	B173
0592/03	X		X
0594		X	
0595	X	X	
0596	X		X

VOLTAGE REFERENCES



J2

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NORMALLY OPEN	2N	
2	NORMALLY CLOSED	2N	
3	+15VF	2N	
4	POS MIX BIAS	2N	
5	PIN SWITCH	2N	
6	COMB	2N	
7	COMB	2N	
8	+15VF	2N	
9	-15VF	2N	

J3

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC	2N	
2	ADN	2N	
3	IF1	2N	
4	+15V	2N	
5	POS MIX BIAS	2N	
6	COMB	2N	
7	COMB	2N	
8	+15VF	2N	
9	-15VF	2N	

J4

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	NC	2N	
2	+15V	2N	
3	COMB	2N	
4	+15VF	2N	
5	POS MIX BIAS	2N	
6	COMB	2N	
7	COMB	2N	
8	+15VF	2N	
9	-15VF	2N	

J5

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	100B OUT	2N	
2	100B IN	2N	
3	100B SW	2N	
4	200B OUT	2N	
5	200B IN	2N	
6	200B SW	2N	
7	400B OUT	2N	
8	400B IN	2N	
9	400B SW	2N	

J301

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	100B OUT	2N	
2	100B IN	2N	
3	100B SW	2N	
4	200B OUT	2N	
5	200B IN	2N	
6	200B SW	2N	
7	400B OUT	2N	
8	400B IN	2N	
9	400B SW	2N	

MEMORIC SHEET

MEMORIC	1	2	3
+15VF	U	U	T,V
+15VB	I	U	
+15VF	A,B,L	U	W
-15VF	B,F,L	U	
ANAL_TEST	B	N	
BWS	N	N	
IF2	N	N	Y
IF3	N	N	X
IF4	N	N	
IF5	N	N	
IF6	N	N	
IF7	N	N	
IF8	N	N	
IF9	N	N	
IF10	N	N	
IF11	N	N	
IF12	N	N	
IF13	N	N	
IF14	N	N	
IF15	N	N	
IF16	N	N	
IF17	N	N	
IF18	N	N	
IF19	N	N	
IF20	N	N	
IF21	N	N	
IF22	N	N	
IF23	N	N	
IF24	N	N	
IF25	N	N	
IF26	N	N	
IF27	N	N	
IF28	N	N	
IF29	N	N	
IF30	N	N	
IF31	N	N	
IF32	N	N	
IF33	N	N	
IF34	N	N	
IF35	N	N	
IF36	N	N	
IF37	N	N	
IF38	N	N	
IF39	N	N	
IF40	N	N	
IF41	N	N	
IF42	N	N	
IF43	N	N	
IF44	N	N	
IF45	N	N	
IF46	N	N	
IF47	N	N	
IF48	N	N	
IF49	N	N	
IF50	N	N	
IF51	N	N	
IF52	N	N	
IF53	N	N	
IF54	N	N	
IF55	N	N	
IF56	N	N	
IF57	N	N	
IF58	N	N	
IF59	N	N	
IF60	N	N	

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROCENRIES (μH).

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.

RAW BOARD = 08592-20097

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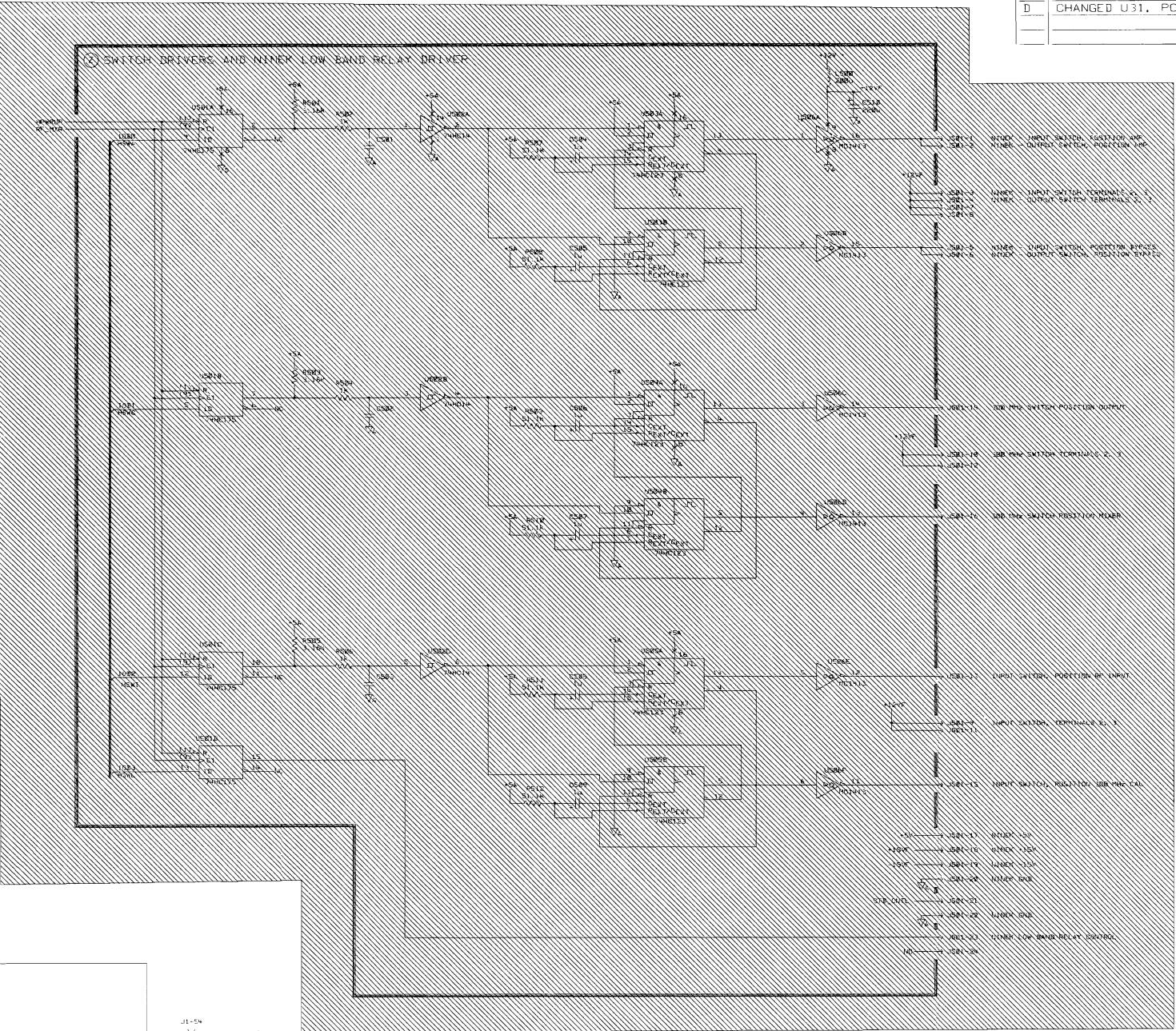
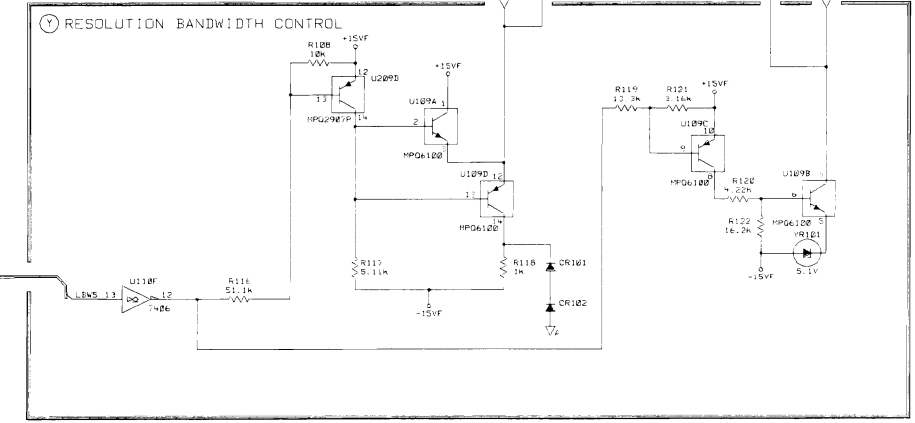
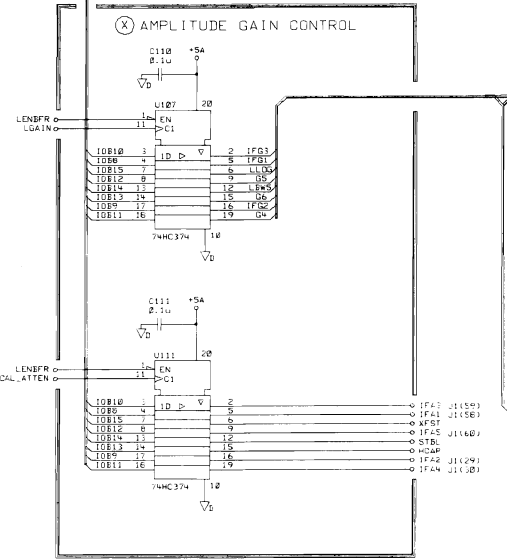
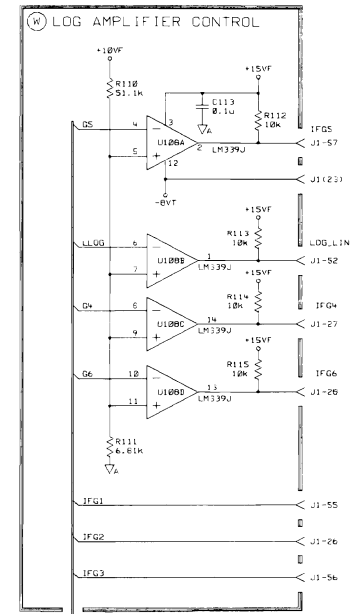
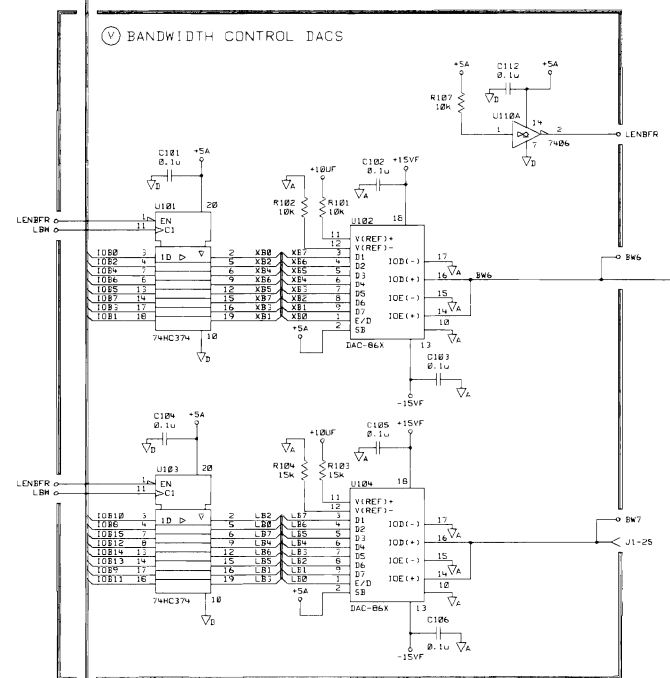
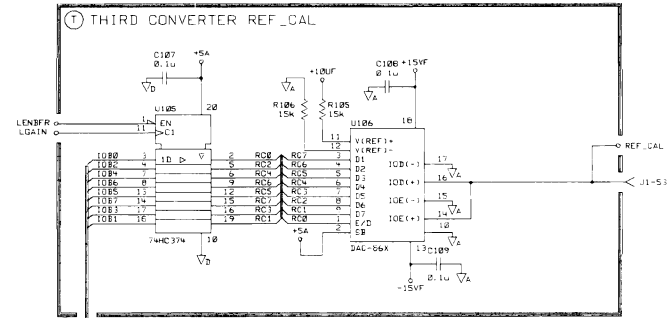
DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA ANALOG INTERFACE

s2acy022	FILENAME	SCALE	SHEET 2 OF 3	08595-60022	PART NUMBER	D-08595-60022-1

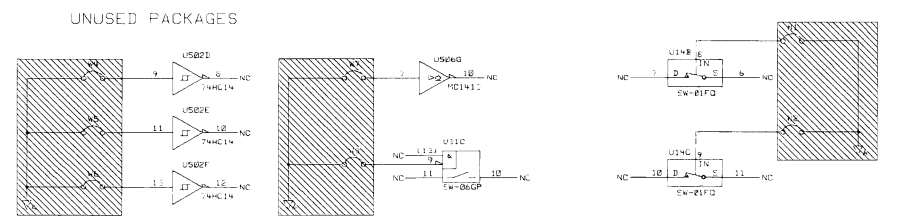


TITLE



MNE/MONIC	SHEET		
	1	2	3
+100F	U		T.V
+100F8	N,U		
+100F9	A,B,L	U,P,U	*
+100F0	B,F,J,K		
ANL TEST	B	N	
ATPR-2	B	N	V
BNC	N	N	V,V
BNC	N	N	V
CAL_STTEN	A	N	X
DTUNE	A	N	X
DISCRIM	A,J	S	
FTUNE	A,J	S	
FM+	D,H		
FM-	B,G,H		
FMSB-1	E	R	
FM TUNE	A,E,H,U		
FTUNE	A,E,H,U		
HES	A	S	
HESB	I	H,D,R	X
HESR	I	R	
HESM	C	D,N	
HWRUP	C	R	
HTSK	C	N	X
IF1-5	N	X	
IGASB-4	A	N,S	
IG10-15	A,G,L	G,P,R	T,V,X
IG10	A,G,L		
IG15	E	V	
LENBR	C	R	T,V,X
LFLT	C	R	
LEWIN	C	R	
LOOP	G	S	T,X
LOP	G	S	
REF	H	B,F	P
REFB	H	B,F	P
REFR	H	B,F	P
REFS	H	B,F	P
REFT	H	B,F	P
REFV	H	B,F	P
REFW	H	B,F	P
REFX	H	B,F	P
REFY	H	B,F	P
REFZ	H	B,F	P
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REFAB	H	B,F	P
REFAC	H	B,F	P
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REFAE	H	B,F	P
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REFAH	H	B,F	P
REFAI	H	B,F	P
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REFAK	H	B,F	P
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REFAY	H	B,F	P
REFAZ	H	B,F	P

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN PICOFARADS (pF); INDUCTANCE IN MICROHENRIES (μH)



NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW EDARD - 08592-20097

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DRAWN BY DATE  
 ENGINEER/CHECKER DATE  
 RELEASE TO PROD. DATE  
 SUPERSEDES DWG.

SCHEMATIC, PWA  
 ANALOG  
 INTERFACE  
 TITLE

s3acy022  
 FILENAME  
 SCALE NONE  
 SHEET 3 OF 3  
 08595-60022  
 PART NUMBER  
 D-08595-60022-1



# **Component-Level Information Packet for 08590-60196**

## **Tracking Generator Control**



**HP Part No. 08590-90157  
Printed in USA May 1997**

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**HP Part Number 08590-60196**  
**Tracking Generator Control**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C2	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C3	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C4	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C5	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C6	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C7	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C8	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C9	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C10	0160-6588	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C11	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C12	0180-4191	1	CAP-FXD 33uF +-10% 35 V TA	28480	0180-4191
C13	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C14	0180-4191	1	CAP-FXD 33uF +-10% 35 V TA	28480	0180-4191
C15	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C16	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C17	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C18	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C19	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C20	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C21	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C22	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C23	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C24	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C25	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C26	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C27	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C28	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C29	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C30	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C31	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C32	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C33	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C34	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C35	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084

\*Indicates factory-selected value

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**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C37	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C38	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C39	0160-2437	1	CAP-FXD 5000pF +80% -20% 200 V CER	28480	0160-2437
C40	0160-2437	1	CAP-FXD 5000pF +80% -20% 200 V CER	28480	0160-2437
C41	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C42	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C43	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C44	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C45	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C46	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C47	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C48	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C49	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C50	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C51	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C52	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C53	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C54	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C55	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C56	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C57	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C58	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C59	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C60	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C61	0160-4490	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	28480	0160-4490
C62	0160-5976	1	CAP-FXD 12pF +-5% 50 V CER C0G	28480	0160-5976
C63	0160-4490	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	28480	0160-4490
C64	0160-4518	1	CAP-FXD 3.9pF +-12.82% 200 V CER C0G	28480	0160-4518
C65	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C66	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C67	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389
C68	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C69	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C70	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C71	0160-4619	1	CAP-FXD 2.7pF +-9.26% 200 V CER	28480	0160-4619
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR5	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR7	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR8	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR9	1901-0033	1	DIODE-GEN PRP 180V 200MA DO-35	02237	1MD2
CR10	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR11	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR12	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR13	1902-0951	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	02037	SZ30035-9RL
DS1	1990-1270	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	28480	1990-1270
DS2	1990-1270	1	LED-LAMP LUM-INT=500UCD IF=15MA-MAX	28480	1990-1270
J1	1252-1469	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1469
J2	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J3	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J4	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J5	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J6	1250-1020	1	CONNECTOR-RF SMA FEMALE SGL-HOLE-RR	28480	1250-1020
L1	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L2	9135-0080	1	INDUCTOR 27nH +-5.556% 2.6D-mmX6.6LG-mm	03273	10M271X-1
L3	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L4	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
MP2	0340-0587	1	INSULATOR SLBL-LAC-CMPD	03724	TO-13-07
MP3	08590-00042	1	COVER-VTO SHIELD	28480	08590-00042
MP4	08590-20188	1	SHIELD-VTO	28480	08590-20188
MP5	08590-20189	1	COVER-BOTTOM VTO	28480	08590-20189
MP6	0520-0181	1	SCREW-MACH 2-56 .875-IN-LG PAN-HD-POZI	04771	
MP8	1200-0172	1	INSULATOR-XSTR DAP-GL	02608	7717-89DAP
P1	1252-2349	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2349
Q1	1854-0295	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q2	1853-0075	1	TRANSISTOR-DUAL PNP PD=400MW	28480	1853-0075
Q3	1854-0295	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q4	1854-0295	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295

\*Indicates factory-selected value

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**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q5	1853-0075	1	TRANSISTOR-DUAL PNP PD=400MW	28480	1853-0075
Q6	1854-0295	1	TRANSISTOR-DUAL NPN TO-78 PD=400MW	28480	1854-0295
Q7	1855-1002	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-1002
Q8	1855-1002	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-1002
Q9	1855-1002	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-1002
Q10	1855-1002	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-1002
Q11	1853-0388	1	TRANSISTOR-DUAL PNP TO-78 PD=600MW	28480	1853-0388
Q12	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q13	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q14	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q15	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q16	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q17	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q18	1854-0946	1	TRANSISTOR NPN SI PD=290MW	28480	1854-0946
Q19	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q20	1854-0946	1	TRANSISTOR NPN SI PD=290MW	28480	1854-0946
Q21	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
R1	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R2	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R3	0698-7264	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	28480	0698-7264
R4	0698-7271	1	RESISTOR 28.7K +-1% .05W TF TC=0+-100	28480	0698-7271
R5	0698-7273	1	RESISTOR 34.8K +-1% .05W TF TC=0+-100	28480	0698-7273
R6	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R7	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R8	0698-7252	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	28480	0698-7252
R9	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R10	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R11	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R12	0698-7252	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	28480	0698-7252
R13	0698-7252	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	28480	0698-7252
R14	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R15	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R16	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R17	0698-3266	1	RESISTOR 237K +-1% .125W TF TC=0+-100	28480	0698-3266
R18	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236

**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R19	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R20	0698-6361	1	RESISTOR 8K +-0.1% .125W TF TC=0+-25	28480	0698-6361
R21	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R22	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R23	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R24	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R25	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R26	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R27	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R28	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R29	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R30	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R31	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R32	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R33	0698-6362	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	28480	0698-6362
R34	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R35	0757-0288	1	RESISTOR 9.09K +-1% .125W TF TC=0+-100	28480	0757-0288
R36	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R37	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R38	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R39	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R40	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R41	0698-6619	1	RESISTOR 15K +-0.1% .125W TF TC=0+-25	28480	0698-6619
R42	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R43	2100-3750	1	RESISTOR-TRMR 20K 10% TKF SIDE-ADJ	28480	2100-3750
R44	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R45	0698-7275	1	RESISTOR 42.2K +-1% .05W TF TC=0+-100	28480	0698-7275
R46	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R47	0811-3619	1	RESISTOR 260 +-2% .125W PN TC=+3400+-300	28480	0811-3619
R48	0757-0470	1	RESISTOR 162K +-1% .125W TF TC=0+-100	28480	0757-0470
R49	2100-0544	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-0544
R50	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R51	0811-3575	1	RESISTOR 3K +-2% .125W PN TC=+5600+-300	28480	0811-3575
R52	0698-3266	1	RESISTOR 237K +-1% .125W TF TC=0+-100	28480	0698-3266
R53	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212

\*Indicates factory-selected value

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**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R54	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R55	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R56	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R57	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R58	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R59	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R60	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R61	0811-3575	1	RESISTOR 3K +-2% .125W PN TC=+5600+-300	28480	0811-3575
R62	0698-6624	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0698-6624
R63	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R64	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R65	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R66	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R67	0698-3627	1	RESISTOR 200 +-5% 2W MO TC=0+-200	28480	0698-3627
R68	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R69	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R70	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R71	0698-3627	1	RESISTOR 200 +-5% 2W MO TC=0+-200	28480	0698-3627
R72	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R73	0698-7256	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	28480	0698-7256
R74	0698-7216	1	RESISTOR 147 +-1% .05W TF TC=0+-100	28480	0698-7216
R75	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R76	0698-7264	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	28480	0698-7264
R77	0698-7286	1	RESISTOR 121K +-1% .05W TF TC=0+-100	28480	0698-7286
R78	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R79	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R80	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R81	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R82	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R83	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R84	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R85	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R86	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R87	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R88	0698-6774	1	RESISTOR 150 +-0.1% .125W TF TC=0+-25	28480	0698-6774



**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R89	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R90	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R91	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R92	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R93	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R94	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R95	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R96	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R97	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R98	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R99	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R100	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	2100-0544	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-0544
R102	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R103	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R104	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R105	0698-7250	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	28480	0698-7250
R106	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R107	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R108	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R109	0698-7250	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	28480	0698-7250
R110	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R111	0698-3443	1	RESISTOR 287 +-1% .125W TF TC=0+-100	28480	0698-3443
R112	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R113	0698-7214	1	RESISTOR 121 +-1% .05W TF TC=0+-100	28480	0698-7214
R114	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R115	0698-7214	1	RESISTOR 121 +-1% .05W TF TC=0+-100	28480	0698-7214
R116	0698-7214	1	RESISTOR 121 +-1% .05W TF TC=0+-100	28480	0698-7214
R117	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R118	0698-7214	1	RESISTOR 121 +-1% .05W TF TC=0+-100	28480	0698-7214
R119	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R120	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R121	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R122	0698-7240	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	28480	0698-7240
R123	0757-0276	1	RESISTOR 61.9 +-1% .125W TF TC=0+-100	28480	0757-0276

\*Indicates factory-selected value

CLIP 08590-90157 7

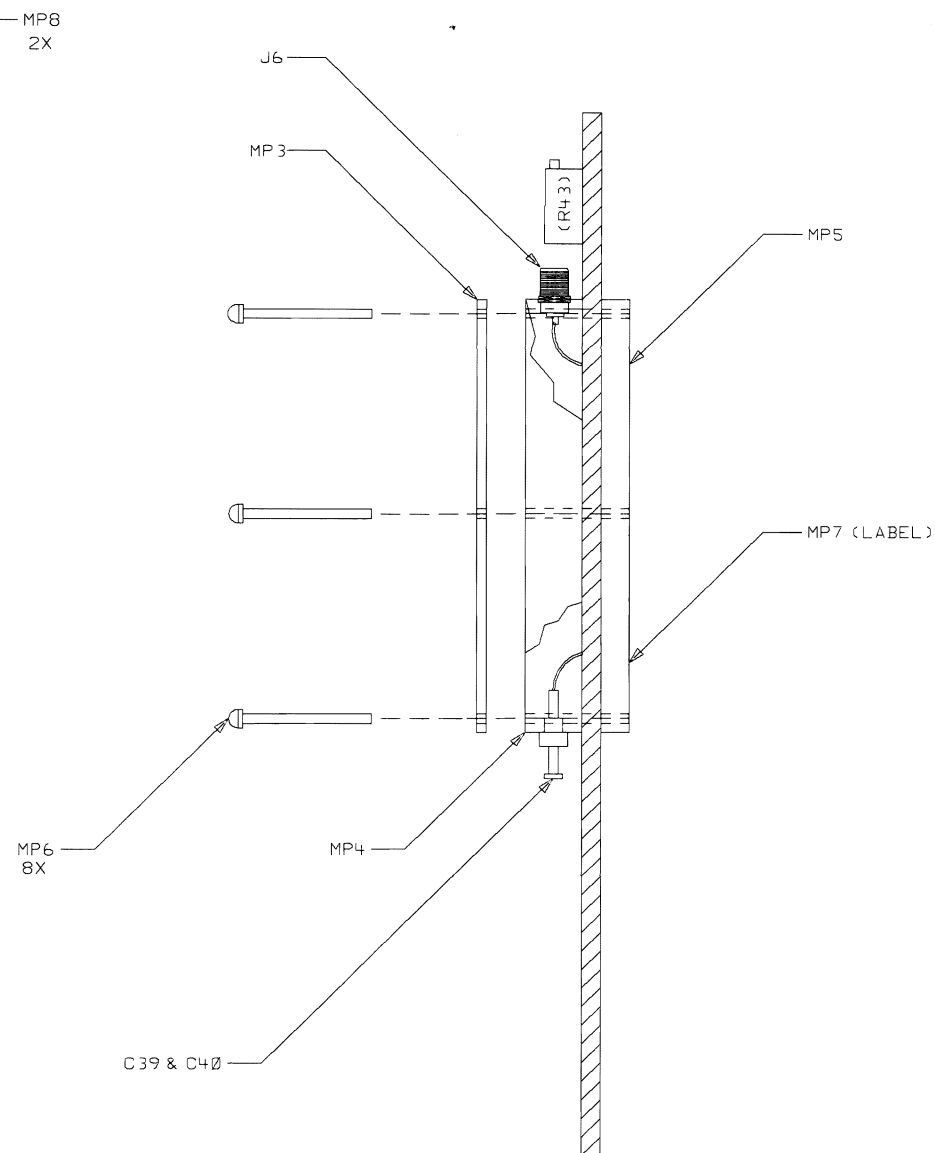
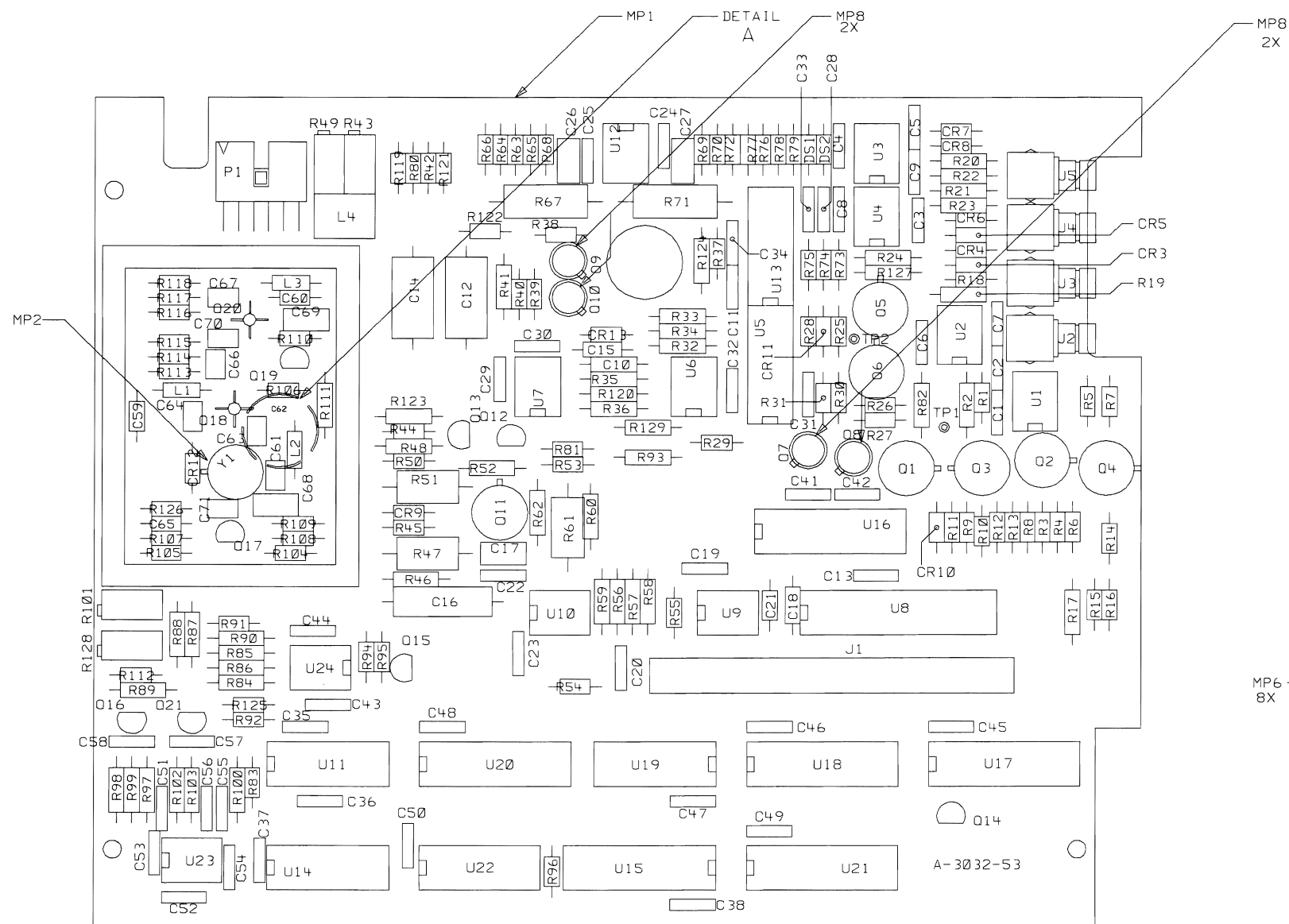
**HP Part Number 08590-60196**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R124	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R125	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R126	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R127	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R128	2100-0544	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-0544
R129	0757-0422	1	RESISTOR 909 +-1% .125W TF TC=0+-100	28480	0757-0422
TP1	0360-0124	1	CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND	13309	
TP2	0360-0124	1	CONNECTOR-SGL CONT PIN .04-IN-BSC-SZ RND	13309	
U1	1826-1381	1	IC OP AMP LOW-BIAS-H-IMPDP 8 PIN DIP-P	28480	1826-1381
U2	1826-1381	1	IC OP AMP LOW-BIAS-H-IMPDP 8 PIN DIP-P	28480	1826-1381
U3	1826-1381	1	IC OP AMP LOW-BIAS-H-IMPDP 8 PIN DIP-P	28480	1826-1381
U4	1826-1381	1	IC OP AMP LOW-BIAS-H-IMPDP 8 PIN DIP-P	28480	1826-1381
U5	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U6	1826-1381	1	IC OP AMP LOW-BIAS-H-IMPDP 8 PIN DIP-P	28480	1826-1381
U7	1826-1049	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1049
U8	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U9	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U11	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U12	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPDP DUAL 8 PIN	28480	1826-0547
U13	1826-0141	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U14	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U15	1820-3790	1	IC LCH CMOS/HC D-TYPE OCTL	28480	1820-3790
U16	1826-1234	1	D/A 8-BIT 20-CERDIP CMOS	28480	1826-1234
U17	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U18	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U19	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U20	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U21	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U22	1858-0047	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U23	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPDP DUAL 8 PIN	28480	1826-0547
U24	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPDP DUAL 8 PIN	28480	1826-0547
Y1	0410-2139	1	RESONATOR-SURF ACST W FREQUENCY:707.13	28480	0410-2139

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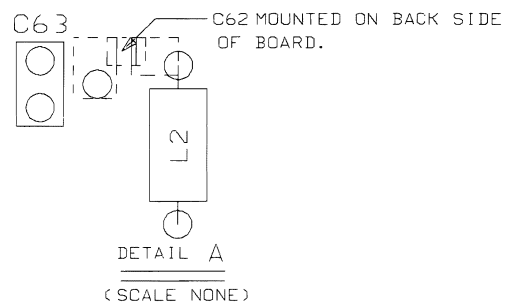
**SCANS  
By  
Artek Media**

S300		D-08590-60196-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-06599 HS		



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT \_\_\_\_\_
4. MAXIMUM LEAD TRIM LENGTH  $.080$
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-08590-A7A1.
6. MAXIMUM COMPONENT HEIGHT CONTROLLED BY ASSOCIATED BOARDS IN SYSTEM.



SEE 08590-60196 MATERIAL LIST

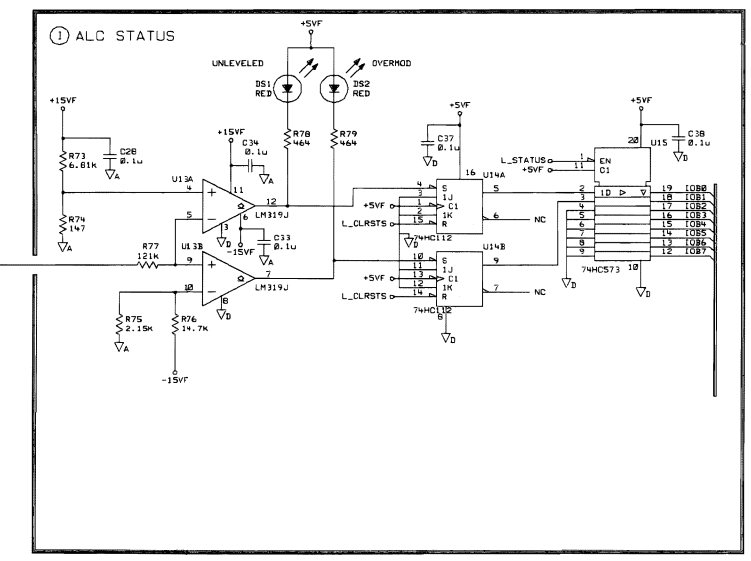
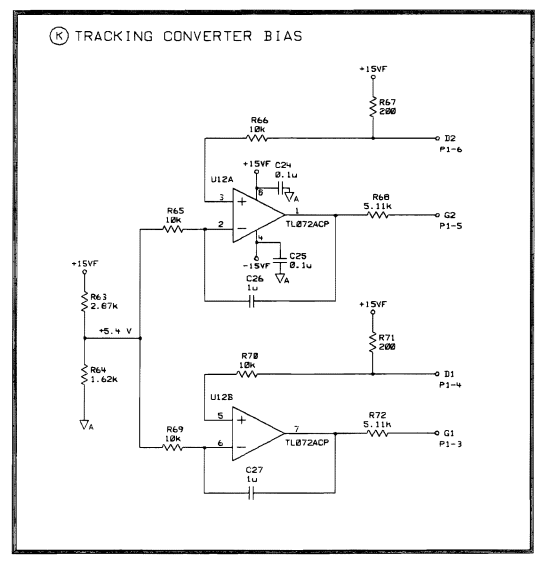
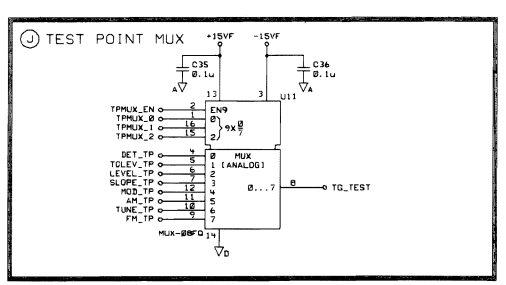
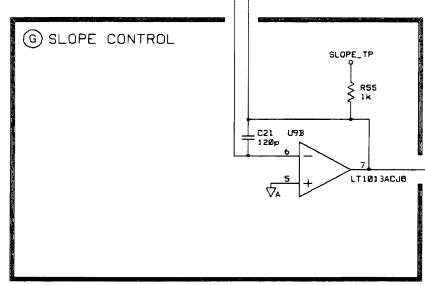
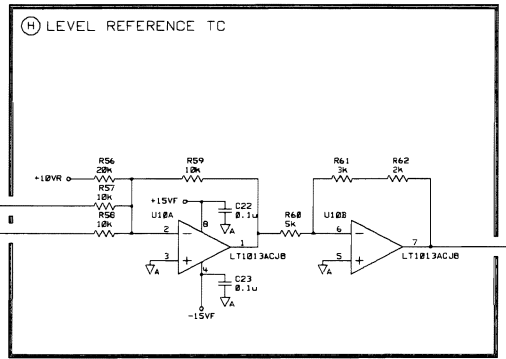
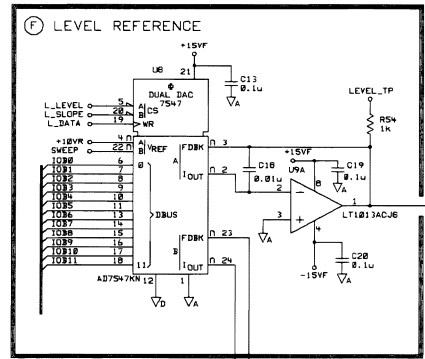
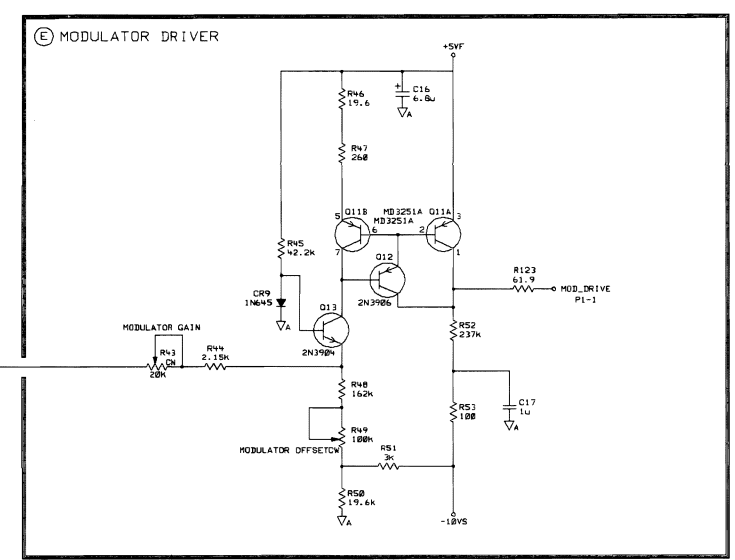
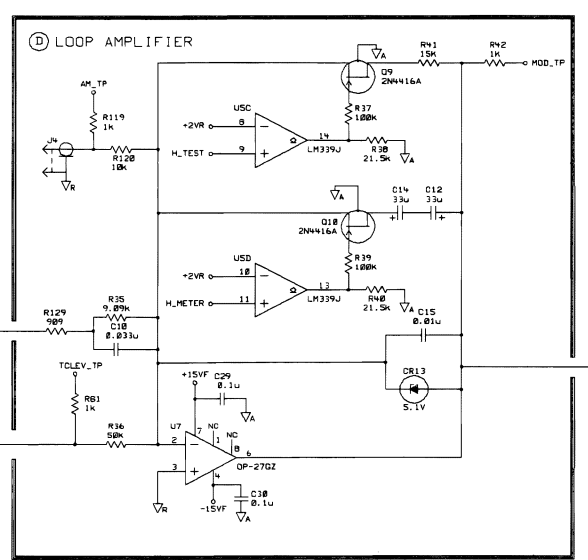
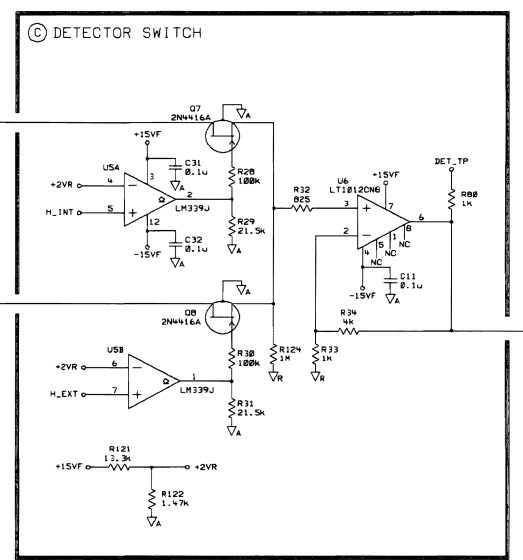
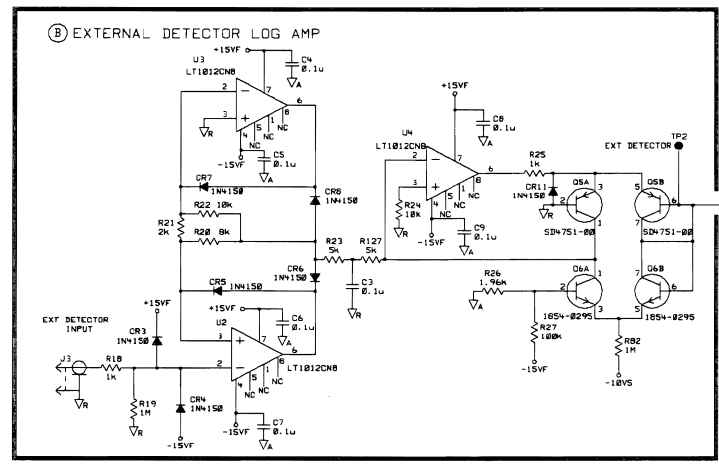
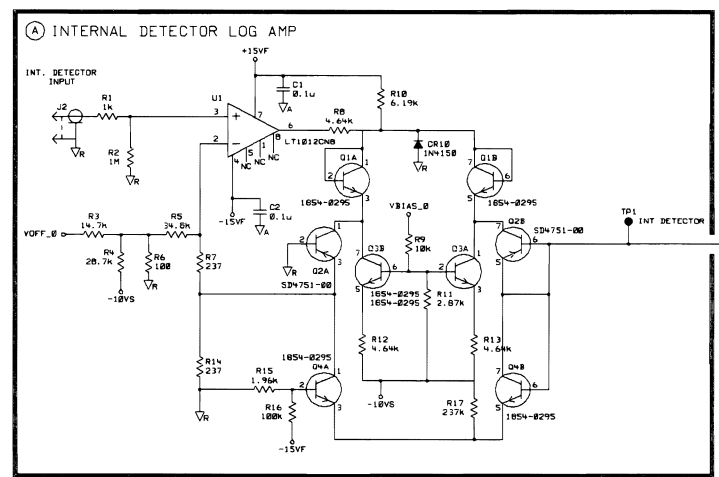
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DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
TRACKING  
GENERATOR  
CONTROL  
TITLE

alabb196	HEWLETT PACKARD
FILENAME	
SCALE NONE	
SHEET 1 of 1	08590-60196 PART NUMBER
D-08590-60196-2	



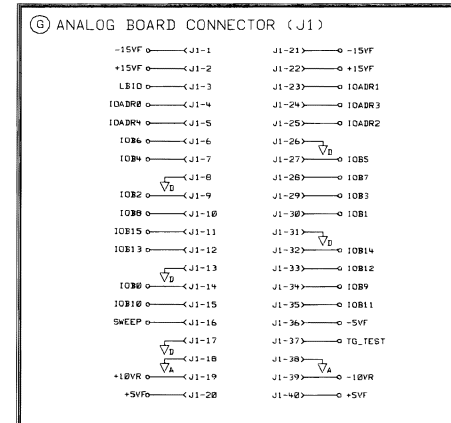
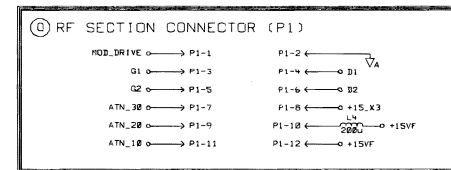
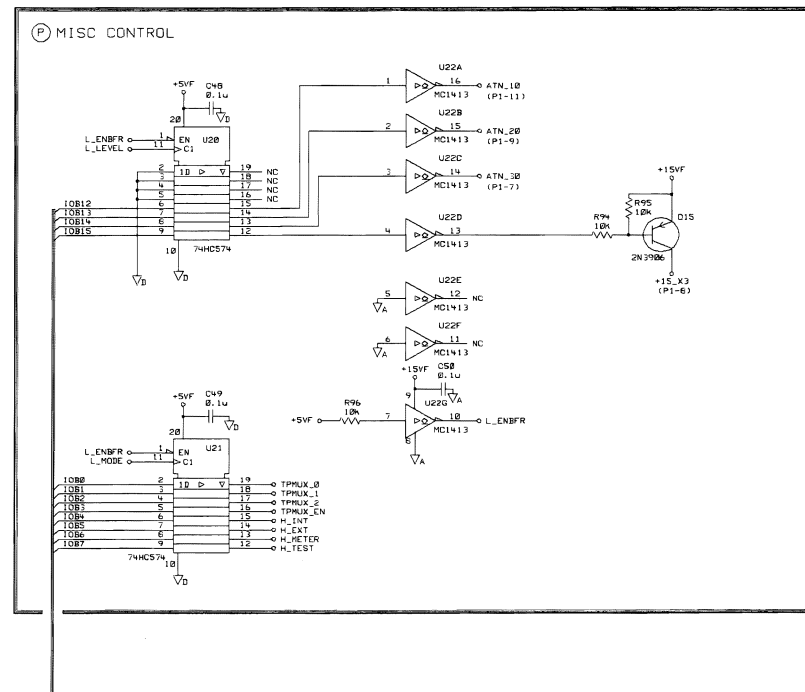
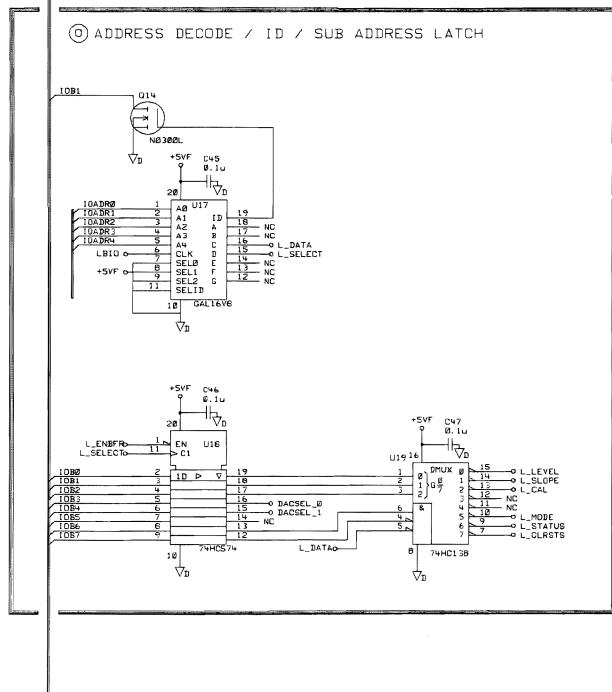
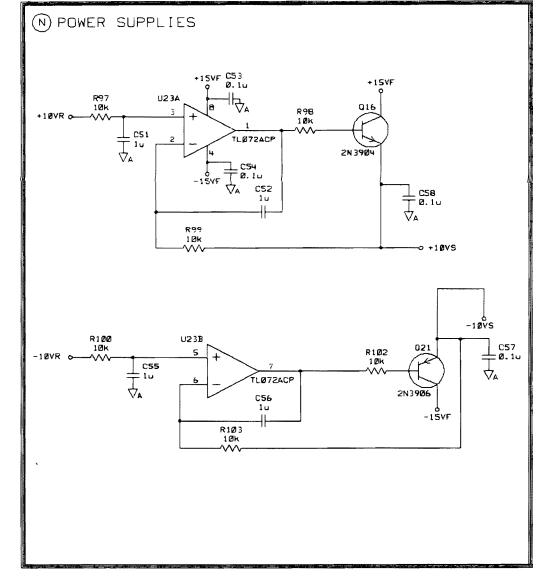
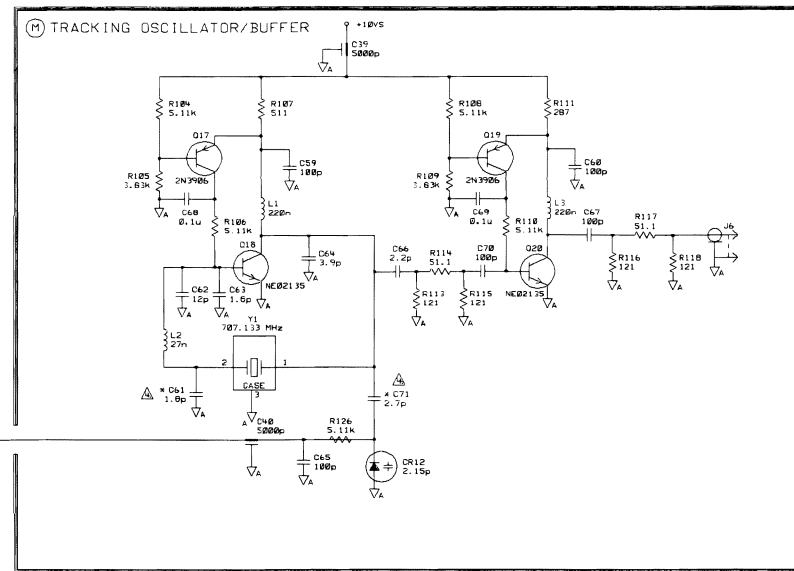
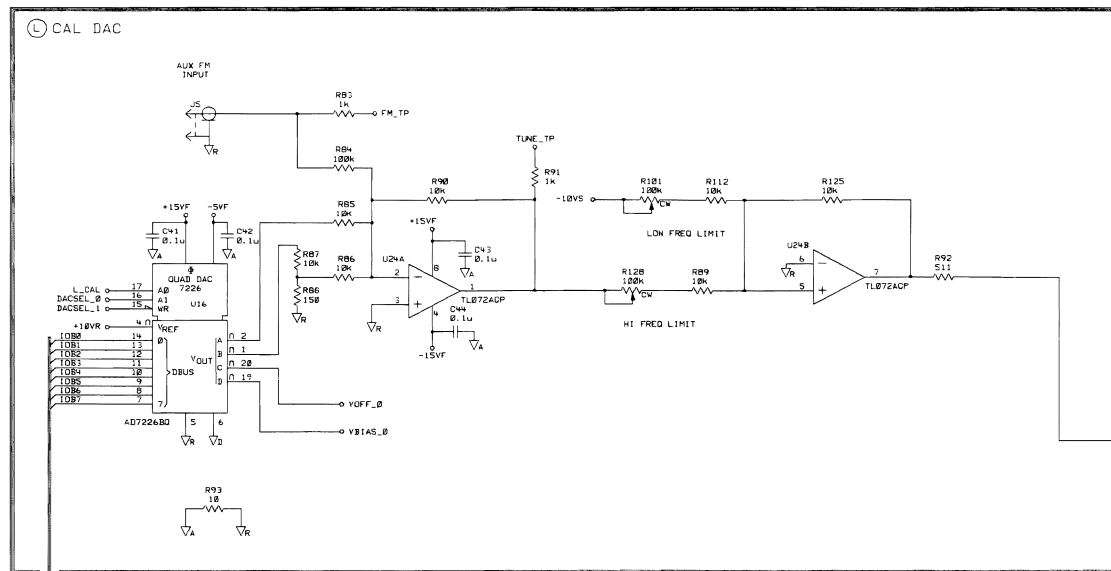
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ENGINEER/CHECKER	DATE
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SUPERSEDES DWG.	

SCHEMATIC, PWA  
TRACKING  
GENERATOR  
CONTROL  
TITLE

slabb196	FILENAME	HEWLETT PACKARD
SCALE NONE		
SHEET 1 OF 2	08590-60196	PART NUMBER
	D-08590-60196-1	

S 300		FA 3109	D-08590-60196-1	
SYM	REVISIONS		APPROVED	DATE
D	REDRAWN PER PCD 53-08742			09-06-95
E	CHANGE PER PCD 53-09521 LN			07-01-96



**NOTES:**

- REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
- UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)
- MEMORIC TABLE

MEMORIC	DESCRIPTION

▲ FACTORY SELECT VALUE (C71)  
 RANGE IS 2.2 TO 2.7pF.  
 ▲ FACTORY SELECT VALUE (C61)  
 RANGE IS 1.2 TO 0.2pF.

RAW 02.- 08590-20196

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RELEASE TO PROD.	DATE
SUPERSEDES DNG.	

SCHMATIC, PWA  
 TRACKING  
 GENERATOR  
 CONTROL

s2abb196 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	08590-60196 PART NUMBER
	D-08590-60196-1

# **Component-Level Information Packet for 08590-60344**

## **3RD Converter**



**HP Part No. 08590-90223  
Printed in USA May 1997**

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**HP Part Number 08590-60344**  
**3RD Converter**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C4	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C5	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C6	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C7	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C8	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C9	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C10	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C11	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C12	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C13	0160-4793	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	28480	0160-4793
C14	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C15	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C16	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C17	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C18	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C19	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C20	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C21	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C22	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C23	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C24	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C25	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C26	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C27	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C28	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C29	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C30	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C31	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C32	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389
C34	0180-4134	1	CAP-FXD 22uF +-10% 15 V TA	28480	0180-4134
C36	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C37	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554

*\*Indicates factory-selected value*

**CLIP 08590-90223 1**

**HP Part Number 08590-60344**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4523	1	CAP-FXD 16pF +-5% 200 V CER C0G	28480	0160-4523
C39	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C41	0160-4798	1	CAP-FXD 2.7pF +-9.26% 100 V CER C0G	28480	0160-4798
C43	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C44	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C45	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C46	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C47	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C48	0160-4796	1	CAP-FXD 3.9pF +-6.4% 100 V CER C0G	28480	0160-4796
C49	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C50	0160-4809	1	CAP-FXD 390pF +-5% 100 V CER C0G	28480	0160-4809
C51	0160-5348	1	CAP-FXD 51pF +-5% 100 V CER C0G	28480	0160-5348
C52	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C53	0160-5413	1	CAP-FXD 160pF +-5% 100 V CER C0G	28480	0160-5413
C54	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C55	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C56	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C57	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C58	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C61	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C62	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C63	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C64	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C65	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C66	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C67	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C68	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
C69	0160-4490	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	28480	0160-4490
C70	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C71	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C72	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C73	0160-4380	1	CAP-FXD 1pF +-25% 200 V CER C0G	28480	0160-4380
C74	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C75	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382

**HP Part Number 08590-60344  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C76	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C77	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C78	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C79	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C80	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
CR1	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
J1	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
J2	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J3	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J4	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J5	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J6	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
L1	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L2	9135-0076	1	INDUCTOR RF-CH-MLD 39nH +-6%	05524	010150-054J
L3	9135-0075	1	INDUCTOR RF-CH-MLD 43nH +-6.047%	05524	
L4	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L5	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L6	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L7	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L9	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L10	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L11	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L12	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L13	9100-3552	1	INDUCTOR RF-CH-MLD 1.5uH +-5%	28480	9100-3552
L14	9100-3560	1	INDUCTOR RF-CH-MLD 5.6uH +-5%	28480	9100-3560
L16	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +-5%	28480	9100-3562
L18	9135-0068	1	INDUCTOR RF-CH-MLD 33nH +-6.36%	05524	
L20	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L22	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L24	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L25	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L26	9135-0077	1	INDUCTOR 36nH +-6.389% 2.6D-mmX6.6LG-mm	03273	10M036X-1
MP2	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP3	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	

*\*Indicates factory-selected value*

**CLIP 08590-90223 3**

**HP Part Number 08590-60344**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP4	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP5	5002-0668	1	CVR-3RD CONV 001	28480	5002-0668
MP6	86701-40001	1	EXTRACTOR PC	28480	86701-40001
MP7	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP9	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP10	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP13	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP14	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP15	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP17	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP18	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP20	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP21	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
Q1	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q2	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q4	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q5	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q6	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q7	1853-0007	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q8	1854-1142	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=6GHZ	28480	1854-1142
Q9	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q10	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q11	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q12	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q13	1854-0946	1	TRANSISTOR NPN SI PD=290MW	28480	1854-0946
R1	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R2	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R3	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R4	0699-2069	1	RESISTOR 13.3 +-1% .05W TF TC=0+-100	28480	0699-2069
R5	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R6	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R7	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R8	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R9	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R10	0699-1948	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0699-1948

**HP Part Number 08590-60344  
3RD Converter (continued)**

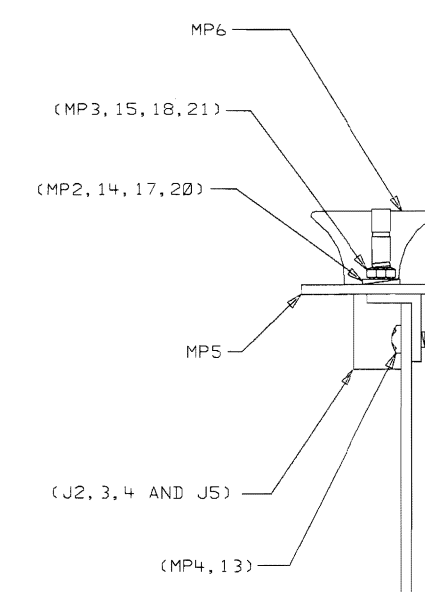
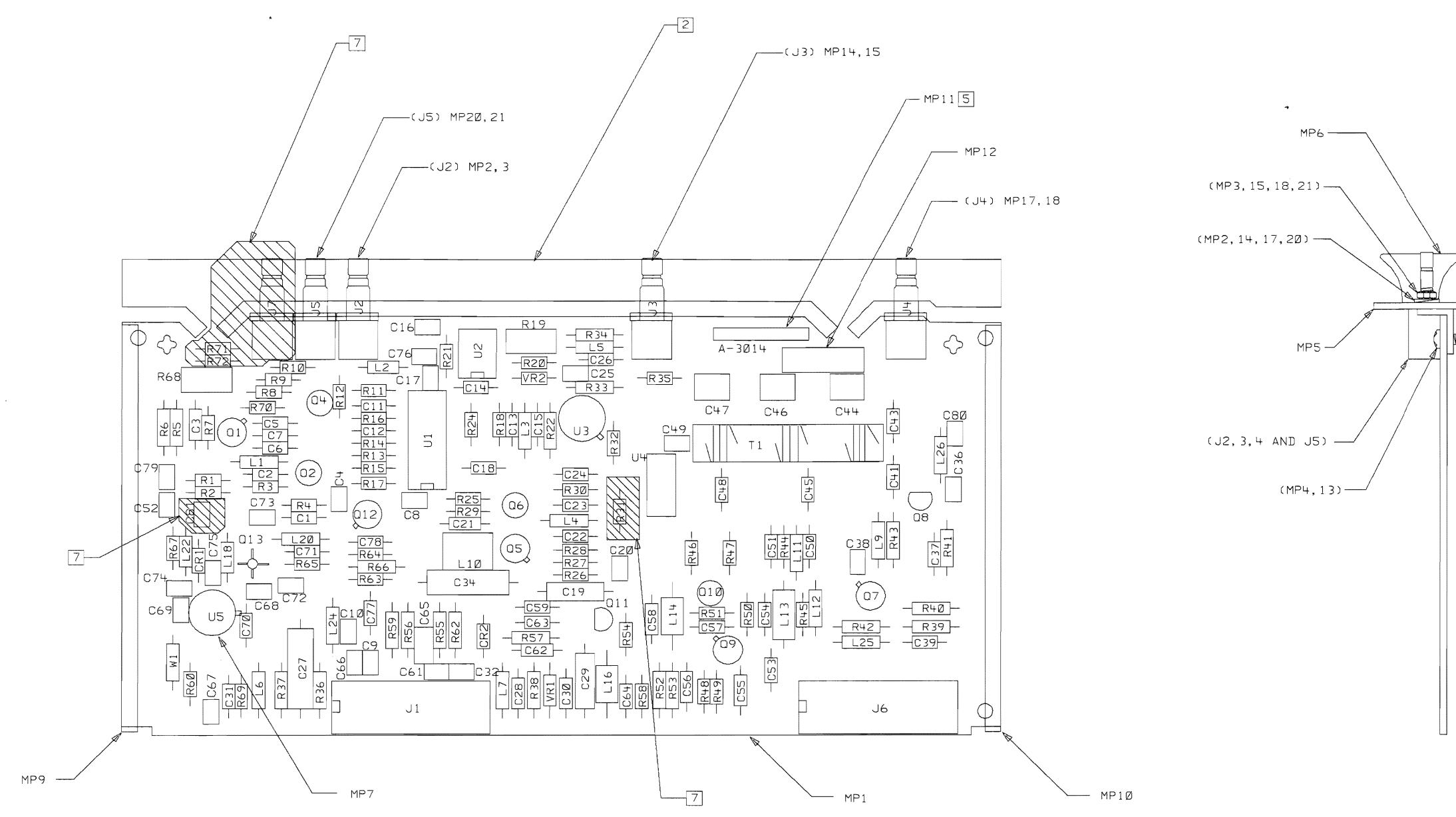
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R11	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R12	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R13	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R14	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R15	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R16	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R17	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R18	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R19	2100-3351	1	RESISTOR-TRMR 500 10% TKF SIDE-ADJ 1-TRN	28480	2100-3351
R20	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R21	0698-7216	1	RESISTOR 147 +-1% .05W TF TC=0+-100	28480	0698-7216
R22	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R23	0698-7216	1	RESISTOR 147 +-1% .05W TF TC=0+-100	28480	0698-7216
R24	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R25	0698-7197	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	28480	0698-7197
R26	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R27	0698-7254	1	RESISTOR 5.62K +-1% .05W TF TC=0+-100	28480	0698-7254
R28	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R29	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R30	0698-7192	1	RESISTOR 14.7 +-1% .05W TF TC=0+-100	28480	0698-7192
R32	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R33	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R34	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R35	0698-7210	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	28480	0698-7210
R36	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R37	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R38	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R39	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R40	0698-3136	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	28480	0698-3136
R41	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R42	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R43	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R44	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R45	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R46	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822

*\*Indicates factory-selected value*

**CLIP 08590-90223 5**

**HP Part Number 08590-60344**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R47	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822
R48	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R49	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R50	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R51	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R52	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R53	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R54	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R55	0757-0419	1	RESISTOR 681 +-1% .25W TF TC=0+-100	28480	0757-0419
R56	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R57	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R58	0698-7210	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	28480	0698-7210
R59	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R60	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R62	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R63	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R64	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R65	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R66	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R67	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R68	2100-3355	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-3355
R69	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R70	0698-7215	1	RESISTOR 133 +-1% .05W TF TC=0+-100	28480	0698-7215
T1	08558-80003	1	COIL B.P. FILTER	28480	08558-80003
U1	1821-0961	1	IC PRESCR ECL DIV-X-2	28480	1821-0961
U2	1826-0372	1	IC MISC 8 PIN DIP-P	28480	1826-0372
U3	1813-0211	1	IC WIDEBAND AMPL TO-39	28480	1813-0211
U4	0955-0113	1	U-WAVE MIXER 1 GHZ MAX	02739	TFM-2-38
U5	0410-2119	1	RESONATOR-SURF ACST W FREQUENCY:599.95	28480	0410-2119
VR1	1902-0025	1	DIODE-ZNR 10V 5% DO-35 PD=.4W TC=+.06%	28480	1902-0025
VR2	1902-0947	1	DIODE-ZNR 3.6V 5% DO-35 PD=.4W TC=-.036%	02037	SZ30035-5
W1	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
- 2 REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .400.
4. MAX LEAD TRIM .100.
- 5 08590-60344 USES RAW BOARD 08590-20192  
ADD LABEL (MP11) TO MAKE DISRINCTION.
6. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08590-A9.
- 7 THE FOLLOWING HATACHED COMPONENTS  
ARE NOT TO BE LOADED R31, C81, R71, R72, AND J7.

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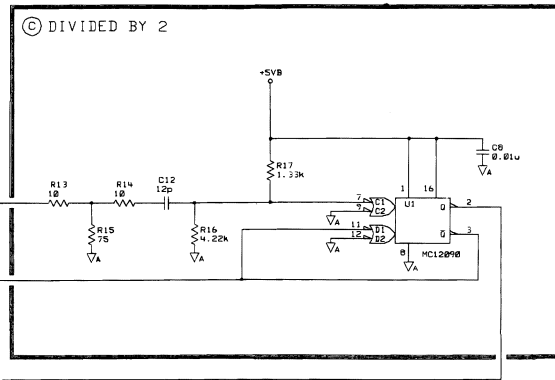
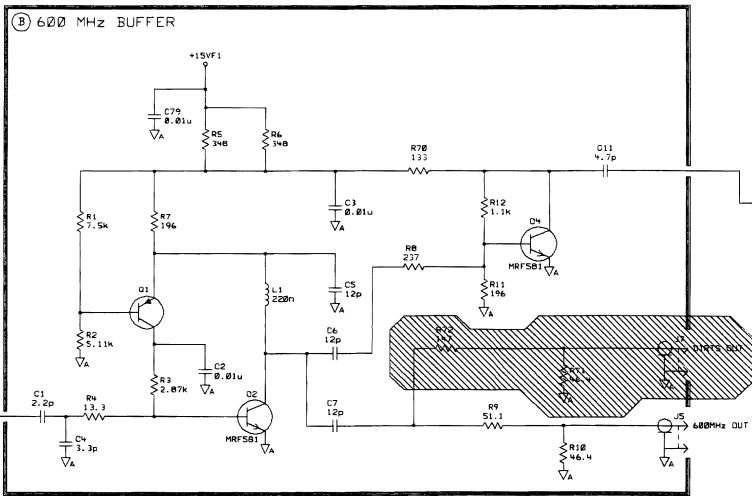
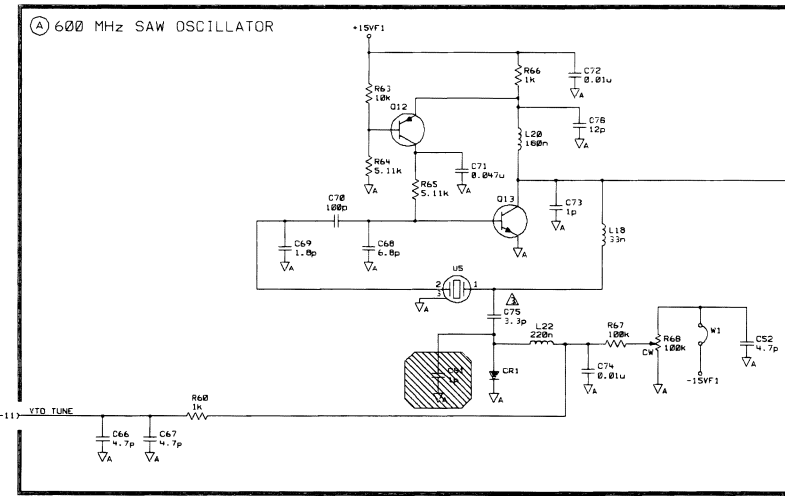
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ± .010  
                  XX.XX ± .02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
3RD CONVERTER

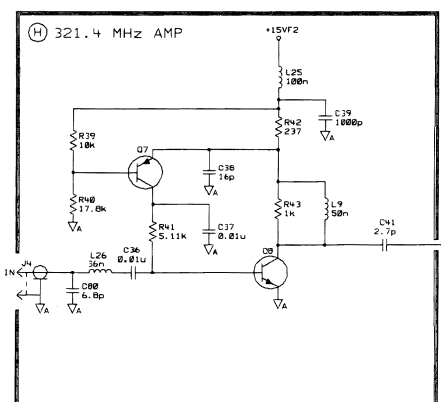
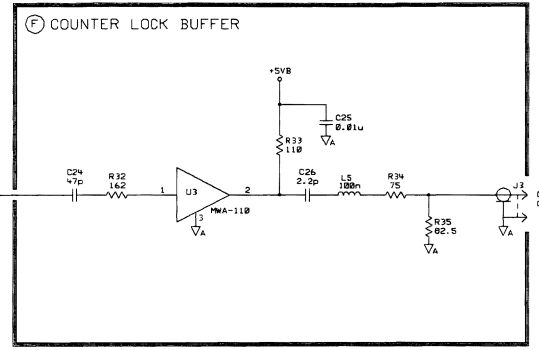
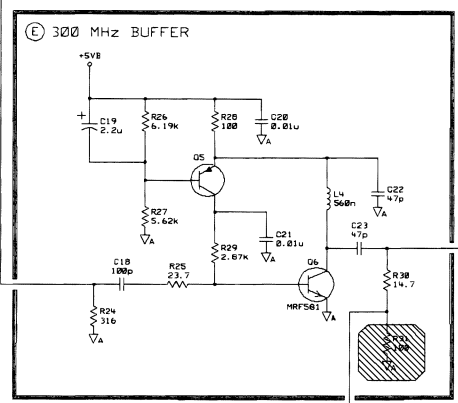
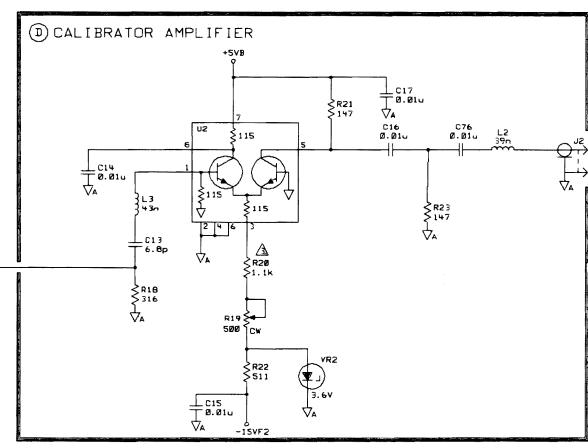
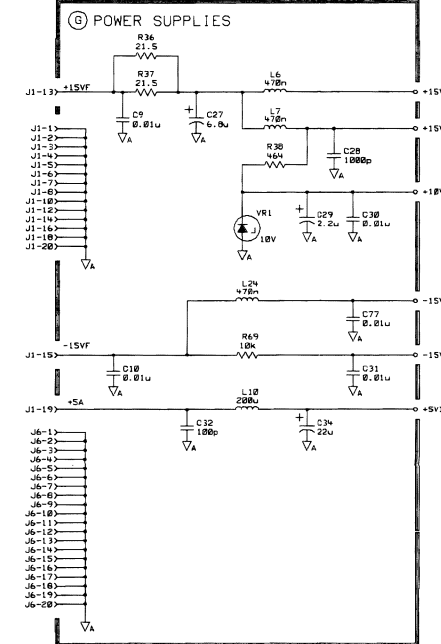
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D-08590-60344-2	

5300	DA3014	D-08590-60344-1
SYM	REVISIONS	APPROVED
D	REDRAWN PER PCD 53-09369	DATE
		10-07-96



J1			J6		
PIN	SIGNAL	FUNCTION BLOCK	PIN	SIGNAL	FUNCTION BLOCK
1	ACOP	0	1	Z50H	0
2	Z50H	0	2	Z50H	0
3	Z50H	0	3	Z50H	0
4	Z50H	0	4	Z50H	0
5	Z50H	0	5	Z50H	0
6	Z50H	0	6	Z50H	0
7	Z50H	0	7	Z50H	0
8	Z50H	0	8	Z50H	0
9	Z50H	0	9	Z50H	0
10	Z50H	0	10	Z50H	0
11	Z50H	0	11	Z50H	0
12	Z50H	0	12	Z50H	0
13	Z50H	0	13	Z50H	0
14	Z50H	0	14	Z50H	0
15	Z50H	0	15	Z50H	0
16	Z50H	0	16	Z50H	0
17	Z50H	0	17	Z50H	0
18	Z50H	0	18	Z50H	0
19	Z50H	0	19	Z50H	0
20	Z50H	0	20	Z50H	0

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)  
 Δ FACTORY SELECT PART





# **Component-Level Information Packet for 08591-60081**

## **3RD Converter**



**HP Part No. 08591-90120  
Printed in USA May 1997**

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**HP Part Number 08591-60081  
3RD Converter**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C4	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C5	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C6	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C7	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C8	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C9	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C10	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C11	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C12	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C13	0160-4793	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	28480	0160-4793
C14	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C15	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C16	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C17	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C18	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C19	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C20	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C21	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C22	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C23	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C24	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C25	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C26	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C27	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C28	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C29	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C30	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C31	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C32	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389
C34	0180-4134	1	CAP-FXD 22uF +-10% 15 V TA	28480	0180-4134
C36	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C37	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554

*\*Indicates factory-selected value*

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**HP Part Number 08591-60081  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4523	1	CAP-FXD 16pF +-5% 200 V CER C0G	28480	0160-4523
C39	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C41	0160-4798	1	CAP-FXD 2.7pF +-9.26% 100 V CER C0G	28480	0160-4798
C43	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C44	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C45	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C46	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C47	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C48	0160-4796	1	CAP-FXD 3.9pF +-6.4% 100 V CER C0G	28480	0160-4796
C49	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C50	0160-4809	1	CAP-FXD 390pF +-5% 100 V CER C0G	28480	0160-4809
C51	0160-5348	1	CAP-FXD 51pF +-5% 100 V CER C0G	28480	0160-5348
C52	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C53	0160-5413	1	CAP-FXD 160pF +-5% 100 V CER C0G	28480	0160-5413
C54	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C55	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C56	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C57	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C58	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C61	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C62	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C63	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C64	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C65	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C66	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C67	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C68	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
C69	0160-4490	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	28480	0160-4490
C70	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C71	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C72	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C73	0160-4380	1	CAP-FXD 1pF +-25% 200 V CER C0G	28480	0160-4380
C74	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C75	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382

**HP Part Number 08591-60081  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C76	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C77	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C78	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C79	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C80	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
CR1	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
J1	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
J2	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J3	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J4	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J5	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J6	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
L1	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L2	9135-0070	1	INDUCTOR 24nH +-6.25% 2.6D-mmX6.6LG-mm	03273	10M024X-1
L3	9135-0075	1	INDUCTOR RF-CH-MLD 43nH +-6.047%	05524	
L4	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L5	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L6	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L7	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L9	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L10	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L11	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L12	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L13	9100-3552	1	INDUCTOR RF-CH-MLD 1.5uH +-5%	28480	9100-3552
L14	9100-3560	1	INDUCTOR RF-CH-MLD 5.6uH +-5%	28480	9100-3560
L16	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +-5%	28480	9100-3562
L18	9135-0068	1	INDUCTOR RF-CH-MLD 33nH +-6.36%	05524	
L20	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L22	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L24	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L25	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L26	9135-0077	1	INDUCTOR 36nH +-6.389% 2.6D-mmX6.6LG-mm	03273	10M036X-1
MP2	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP3	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	

*\*Indicates factory-selected value*

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**HP Part Number 08591-60081**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP4	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP5	5002-0667	1	COVER-3RD CONV	28480	5002-0667
MP6	86701-40001	1	EXTRACTOR PC	28480	86701-40001
MP7	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP9	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP10	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP13	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP14	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP15	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP17	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP18	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP20	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP21	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
Q1	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q2	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q4	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q5	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q6	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q7	1853-0007	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q8	1854-1142	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=6GHZ	28480	1854-1142
Q9	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q10	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q11	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q12	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q13	1854-0946	1	TRANSISTOR NPN SI PD=290MW	28480	1854-0946
R1	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R2	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R3	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R4	0699-2069	1	RESISTOR 13.3 +-1% .05W TF TC=0+-100	28480	0699-2069
R5	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R6	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R7	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R8	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R9	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R10	0699-1948	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0699-1948

**HP Part Number 08591-60081  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R11	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R12	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R13	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R14	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R15	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R16	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R17	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R18	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R19	2100-3351	1	RESISTOR-TRMR 500 10% TKF SIDE-ADJ 1-TRN	28480	2100-3351
R20	0698-7235	1	RESISTOR 909 +-1% .05W TF TC=0+-100	28480	0698-7235
R21	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R22	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R23	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R24	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R25	0698-7197	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	28480	0698-7197
R26	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R27	0698-7254	1	RESISTOR 5.62K +-1% .05W TF TC=0+-100	28480	0698-7254
R28	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R29	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R30	0698-7192	1	RESISTOR 14.7 +-1% .05W TF TC=0+-100	28480	0698-7192
R32	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R33	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R34	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R35	0698-7210	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	28480	0698-7210
R36	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R37	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R38	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R39	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R40	0698-3136	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	28480	0698-3136
R41	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R42	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R43	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R44	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R45	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R46	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822

*\*Indicates factory-selected value*

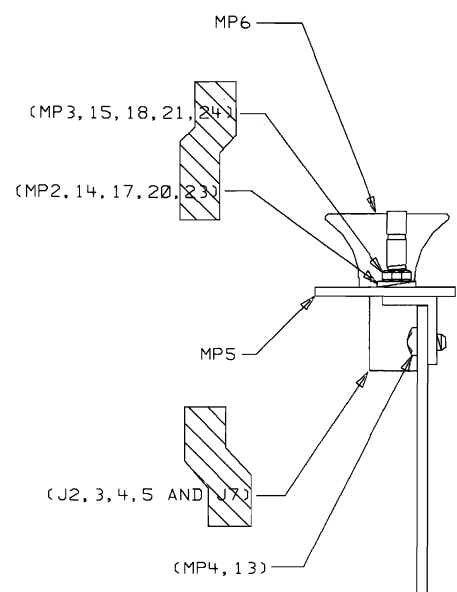
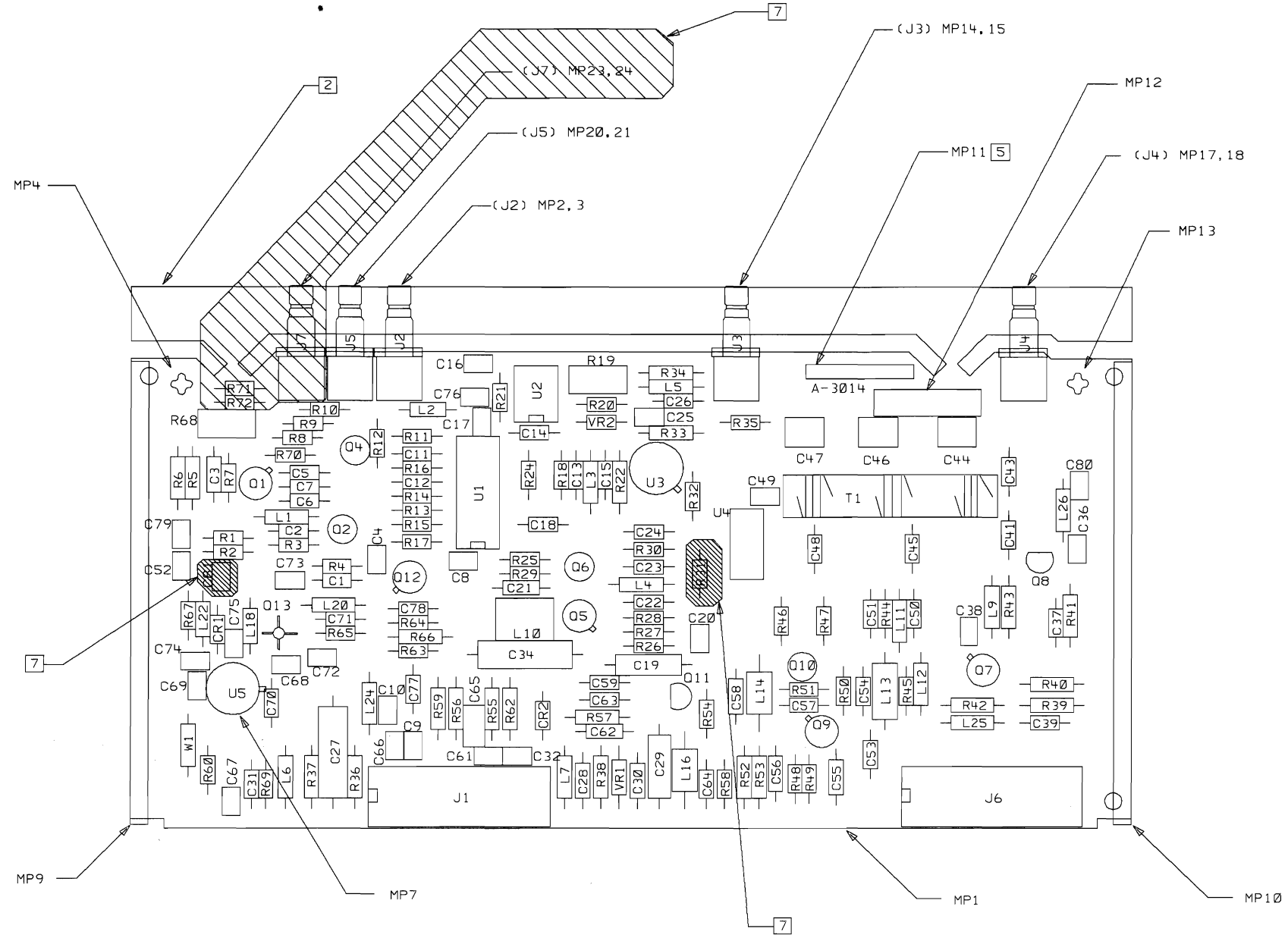
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**HP Part Number 08591-60081**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R47	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822
R48	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R49	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R50	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R51	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R52	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R53	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R54	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R55	0757-0419	1	RESISTOR 681 +-1% .25W TF TC=0+-100	28480	0757-0419
R56	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R57	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R58	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R59	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R60	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R62	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R63	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R64	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R65	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R66	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R67	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R68	2100-3355	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-3355
R69	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R70	0698-7215	1	RESISTOR 133 +-1% .05W TF TC=0+-100	28480	0698-7215
T1	08558-80003	1	COIL B.P. FILTER	28480	08558-80003
U1	1821-0961	1	IC PRESCR ECL DIV-X-2	28480	1821-0961
U2	1826-0372	1	IC MISC 8 PIN DIP-P	28480	1826-0372
U3	1813-0211	1	IC WIDEBAND AMPL TO-39	28480	1813-0211
U4	0955-0113	1	U-WAVE MIXER 1 GHZ MAX	02739	TFM-2-38
U5	0410-2119	1	RESONATOR-SURF ACST W FREQUENCY:599.95	28480	0410-2119
VR1	1902-0025	1	DIODE-ZNR 10V 5% DO-35 PD=.4W TC=+.06%	28480	1902-0025
VR2	1902-0947	1	DIODE-ZNR 3.6V 5% DO-35 PD=.4W TC=-.036%	02037	SZ30035-5
W1	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005



5300		D-08591-60081-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 5300-08058		
B	CHANGED J2-S, PCO 53-08352 /RS		



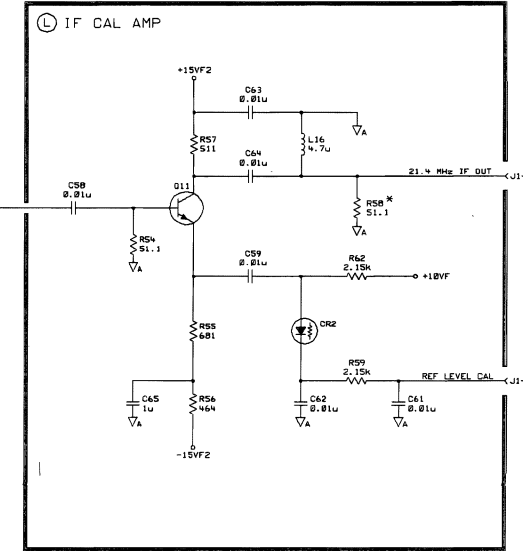
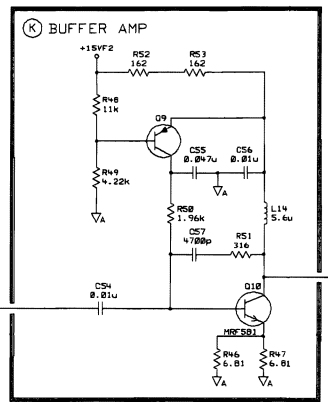
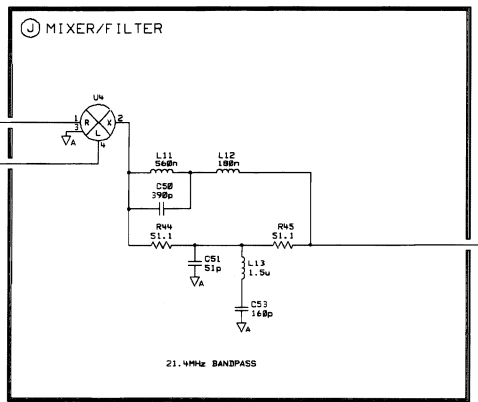
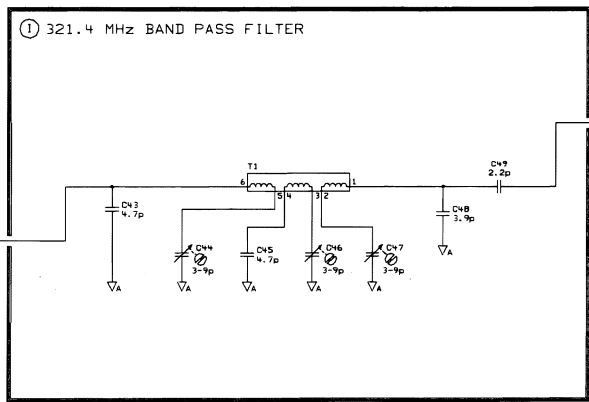
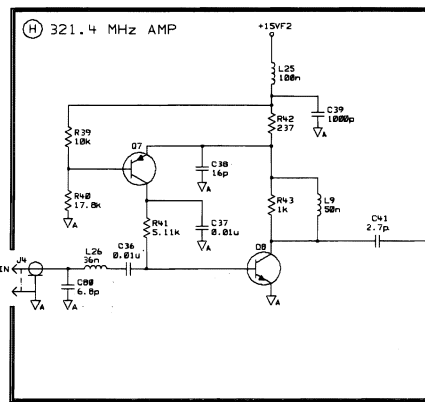
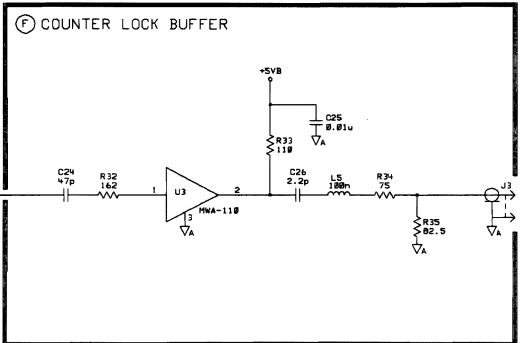
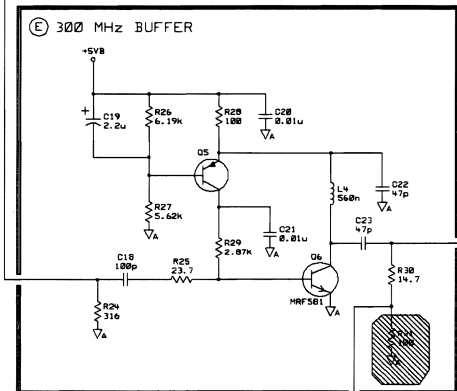
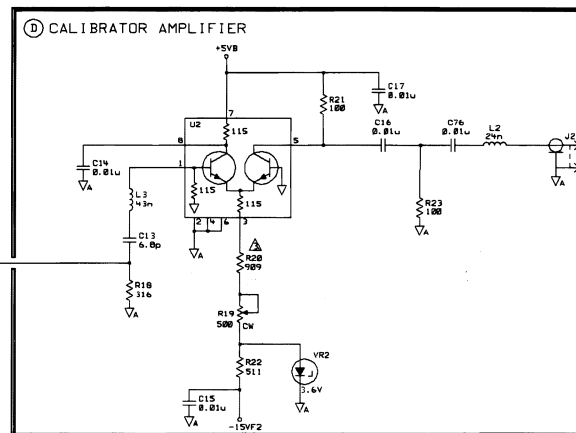
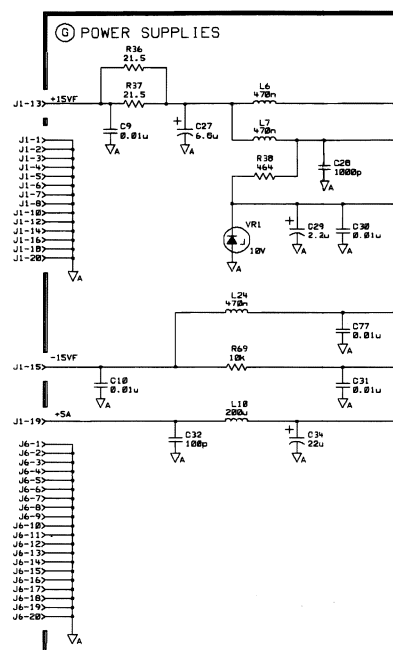
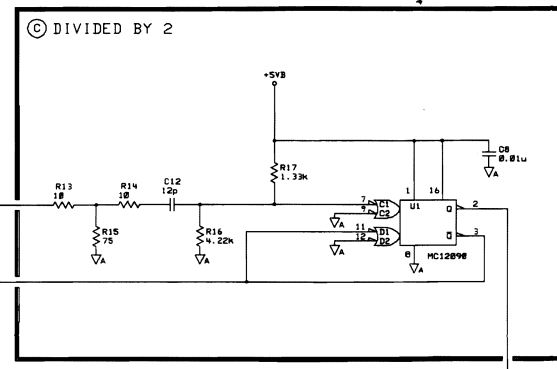
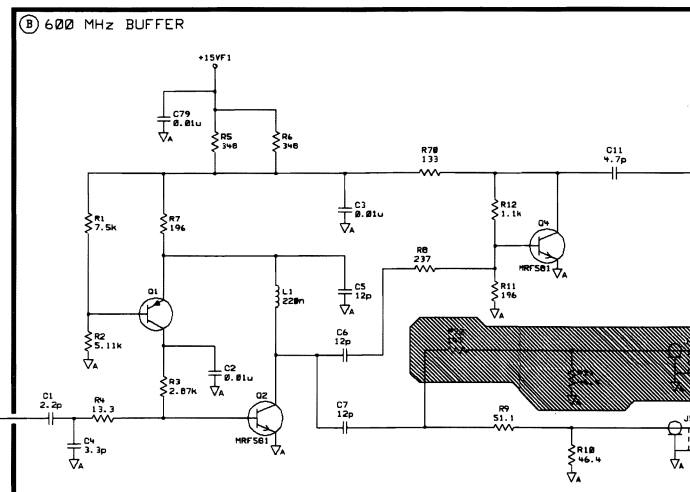
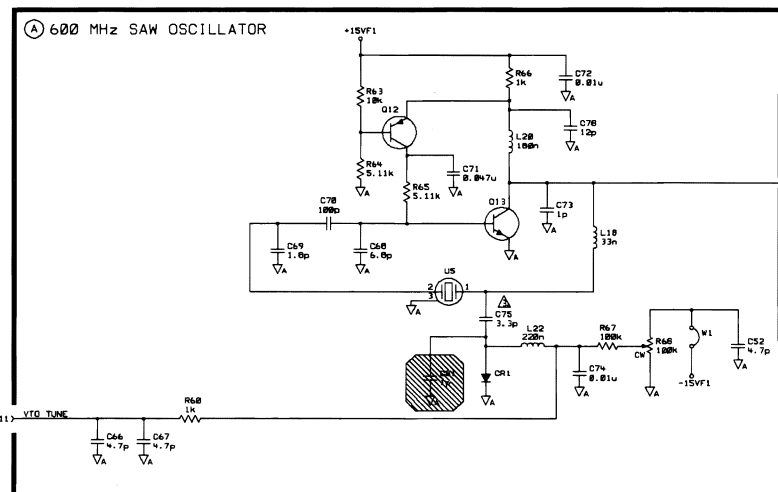
NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .400.
4. MAX LEAD TRIM .100.
5. 08591-60081 USES RAW BOARD 08590-20192  
ADD LABEL (MP11) TO MAKE DISTINCTION.
6. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08590-A9.
7. COMPONENTS HATCHED ARE NOT TO BE  
LOADED ON THIS ASSEMBLY.

SEE 08591-60081 MATERIAL LIST

HP PROPRIETARY THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY INFORMATION THAT IS HEWLETT-PACKARD (HP) PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY HP.	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		DRAWN BY	DATE	ASSEMBLY, PWB 3RD CONVERTER	alaca081	HEWLETT PACKARD
	TOLERANCES: XX.XXX ±.010 XX.XX ±.02		ENGINEER/CHECKER	DATE		SCALE NONE	
	THIRD ANGLE PROJECTION		RELEASE TO PROD.	DATE		SHEET 1 OF 1	
	DO NOT SCALE THIS DRAWING		SUPERSEDES DWG.			08591-60081 PART NUMBER	
					TITLE	D-08591-60081-2	

SYM	REVISIONS	APPROVED	DATE
D	REDRAWN PER PCD 53-09369		10-07-96



J1			J6		
PIN	SIGNAL	FUNCTION BLOCK	PIN	SIGNAL	FUNCTION BLOCK
1	AD00	G	1	AD00	G
2	AD01	G	2	AD01	G
3	AD02	G	3	AD02	G
4	AD03	G	4	AD03	G
5	AD04	G	5	AD04	G
6	AD05	G	6	AD05	G
7	AD06	G	7	AD06	G
8	AD07	G	8	AD07	G
9	AD08	G	9	AD08	G
10	AD09	G	10	AD09	G
11	VFO TUNE	A	11	AD10	G
12	AD11	G	12	AD11	G
13	AD12	G	13	AD12	G
14	AD13	G	14	AD13	G
15	AD14	G	15	AD14	G
16	AD15	G	16	AD15	G
17	AD16	G	17	AD16	G
18	AD17	G	18	AD17	G
19	AD18	G	19	AD18	G
20	AD19	G	20	AD19	G
			21	AD20	G
			22	AD21	G

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH)  
 Δ FACTORY SELECT PART

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
 3RD CONVERTER

slbca081	FILENAME	HEWLETT PACKARD
SCALE NONE		
SHEET 1 OF 1	08591-60081	PART NUMBER
	D-08591-60081-1	

# **Component-Level Information Packet for 08593-60062**

## **3RD Converter**



**HP Part No. 08593-90054  
Printed in USA May 1997**

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**HP Part Number 08593-60062  
3RD Converter**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C4	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C5	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C6	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C7	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C8	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C9	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C10	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C11	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C12	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C13	0160-4793	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	28480	0160-4793
C14	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C15	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C16	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C17	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C18	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C19	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C20	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C21	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C22	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C23	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C24	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C25	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C26	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C27	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C28	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C29	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C30	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C31	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C32	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389
C34	0180-4134	1	CAP-FXD 22uF +-10% 15 V TA	28480	0180-4134
C36	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C37	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554

*\*Indicates factory-selected value*

**CLIP 08593-90054 1**

**HP Part Number 08593-60062  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4523	1	CAP-FXD 16pF +-5% 200 V CER C0G	28480	0160-4523
C39	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C41	0160-4798	1	CAP-FXD 2.7pF +-9.26% 100 V CER C0G	28480	0160-4798
C43	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C44	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C45	0160-4795	1	CAP-FXD 4.7pF +-10.64% 100 V CER C0G	28480	0160-4795
C46	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C47	0121-0444	1	CAP-VAR 9pF 3pF 160 V CER C0G	28480	0121-0444
C48	0160-4796	1	CAP-FXD 3.9pF +-6.4% 100 V CER C0G	28480	0160-4796
C49	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C50	0160-4809	1	CAP-FXD 390pF +-5% 100 V CER C0G	28480	0160-4809
C51	0160-5348	1	CAP-FXD 51pF +-5% 100 V CER C0G	28480	0160-5348
C52	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C53	0160-5413	1	CAP-FXD 160pF +-5% 100 V CER C0G	28480	0160-5413
C54	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C55	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C56	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C57	0160-4831	1	CAP-FXD 4700pF +-10% 100 V CER X7R	28480	0160-4831
C58	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C61	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C62	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C63	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C64	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C65	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C66	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C67	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C68	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
C69	0160-4490	1	CAP-FXD 1.8pF +-13.89% 200 V CER C0G	28480	0160-4490
C70	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C71	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C72	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C73	0160-4380	1	CAP-FXD 1pF +-25% 200 V CER C0G	28480	0160-4380
C74	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C75	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382

**HP Part Number 08593-60062  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C76	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C77	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C78	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C79	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C80	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
CR1	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
J1	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
J2	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J3	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J4	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J5	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
J6	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
J7	1250-1512	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	01380	414963-1
L1	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L2	9135-0070	1	INDUCTOR 24nH +-6.25% 2.6D-mmX6.6LG-mm	03273	10M024X-1
L3	9135-0075	1	INDUCTOR RF-CH-MLD 43nH +-6.047%	05524	
L4	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L5	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L6	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L7	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L9	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L10	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
L11	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L12	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L13	9100-3552	1	INDUCTOR RF-CH-MLD 1.5uH +-5%	28480	9100-3552
L14	9100-3560	1	INDUCTOR RF-CH-MLD 5.6uH +-5%	28480	9100-3560
L16	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +-5%	28480	9100-3562
L18	9135-0068	1	INDUCTOR RF-CH-MLD 33nH +-6.36%	05524	
L20	9100-2250	1	INDUCTOR RF-CH-MLD 180nH +-10%	28480	9100-2250
L22	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L24	9100-2255	1	INDUCTOR RF-CH-MLD 470nH +-10%	28480	9100-2255
L25	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L26	9135-0077	1	INDUCTOR 36nH +-6.389% 2.6D-mmX6.6LG-mm	03273	10M036X-1
MP2	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222

*\*Indicates factory-selected value*

**CLIP 08593-90054 3**

**HP Part Number 08593-60062**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
MP3	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP4	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP5	5002-0667	1	COVER-3RD CONV	28480	5002-0667
MP6	86701-40001	1	EXTRACTOR PC	28480	86701-40001
MP7	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP9	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP10	5001-5539	1	STRAP-GROUND	28480	5001-5539
MP13	2200-0101	1	SCREW-MACH 4-40 .188-IN-LG PAN-HD-POZI	04771	
MP14	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP15	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP17	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP18	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP20	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP21	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
MP23	2190-0124	1	WASHER-LK INTL T NO. 10 .195-IN-ID	02788	500222
MP24	2950-0078	1	NUT-HEX-DBL-CHAM 10-32-THD .067-IN-THK	00904	
Q1	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q2	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q4	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q5	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q6	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q7	1853-0007	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q8	1854-1142	1	TRANSISTOR NPN SI TO-92 PD=625MW FT=6GHZ	28480	1854-1142
Q9	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q10	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q11	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q12	1853-0451	1	TRANSISTOR PNP 2N3799 SI TO-18 PD=360MW	28480	1853-0451
Q13	1854-0946	1	TRANSISTOR NPN SI PD=290MW	28480	1854-0946
R1	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R2	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R3	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R4	0699-2069	1	RESISTOR 13.3 +-1% .05W TF TC=0+-100	28480	0699-2069
R5	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R6	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R7	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219



**HP Part Number 08593-60062  
3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R8	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R9	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R10	0699-2079	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	28480	0699-2079
R11	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R12	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R13	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R14	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R15	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R16	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R17	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R18	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R19	2100-3351	1	RESISTOR-TRMR 500 10% TKF SIDE-ADJ 1-TRN	28480	2100-3351
R20	0698-7235	1	RESISTOR 909 +-1% .05W TF TC=0+-100	28480	0698-7235
R21	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R22	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R23	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R24	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R25	0698-7197	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	28480	0698-7197
R26	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R27	0698-7254	1	RESISTOR 5.62K +-1% .05W TF TC=0+-100	28480	0698-7254
R28	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R29	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R30	0698-7192	1	RESISTOR 14.7 +-1% .05W TF TC=0+-100	28480	0698-7192
R32	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R33	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R34	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R35	0698-7210	1	RESISTOR 82.5 +-1% .05W TF TC=0+-100	28480	0698-7210
R36	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R37	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R38	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R39	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R40	0698-3136	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	28480	0698-3136
R41	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R42	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R43	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280

*\*Indicates factory-selected value*

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**HP Part Number 08593-60062**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R44	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R45	0699-1903	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0699-1903
R46	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822
R47	0698-8822	1	RESISTOR 6.81 +-1% .125W TF TC=0+-100	28480	0698-8822
R48	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R49	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R50	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R51	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R52	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R53	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R54	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R55	0757-0419	1	RESISTOR 681 +-1% .25W TF TC=0+-100	28480	0757-0419
R56	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R57	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R58	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R59	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R60	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R62	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R63	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R64	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R65	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R66	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R67	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R68	2100-3355	1	RESISTOR-TRMR 100K 10% TKF SIDE-ADJ	28480	2100-3355
R69	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R70	0698-7215	1	RESISTOR 133 +-1% .05W TF TC=0+-100	28480	0698-7215
R71	0699-1948	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0699-1948
R72	0699-2032	1	RESISTOR 147 +-1% .05W TF TC=0+-100	28480	0699-2032
T1	08558-80003	1	COIL B.P. FILTER	28480	08558-80003
U1	1821-0961	1	IC PRESER ECL DIV-X-2	28480	1821-0961
U2	1826-0372	1	IC MISC 8 PIN DIP-P	28480	1826-0372
U3	1813-0211	1	IC WIDEBAND AMPL TO-39	28480	1813-0211
U4	0955-0113	1	U-WAVE MIXER 1 GHZ MAX	02739	TFM-2-38
U5	0410-2119	1	RESONATOR-SURF ACST W FREQUENCY:599.95	28480	0410-2119
VR1	1902-0025	1	DIODE-ZNR 10V 5% DO-35 PD=.4W TC=+.06%	28480	1902-0025

**HP Part Number 08593-60062**  
**3RD Converter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
VR2	1902-0947	1	DIODE-ZNR 3.6V 5% DO-35 PD=.4W TC=-.036%	02037	SZ30035-5
W1	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005

*\*Indicates factory-selected value*

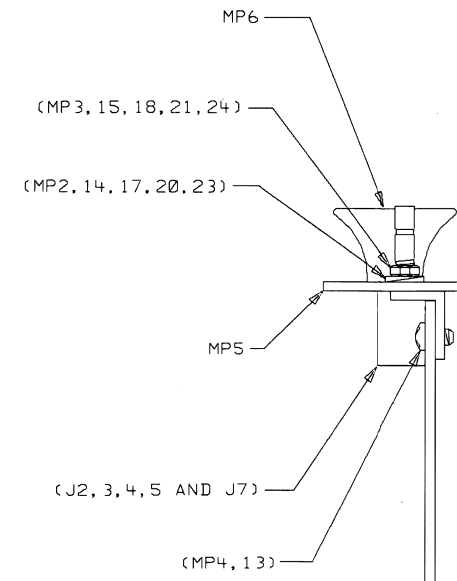
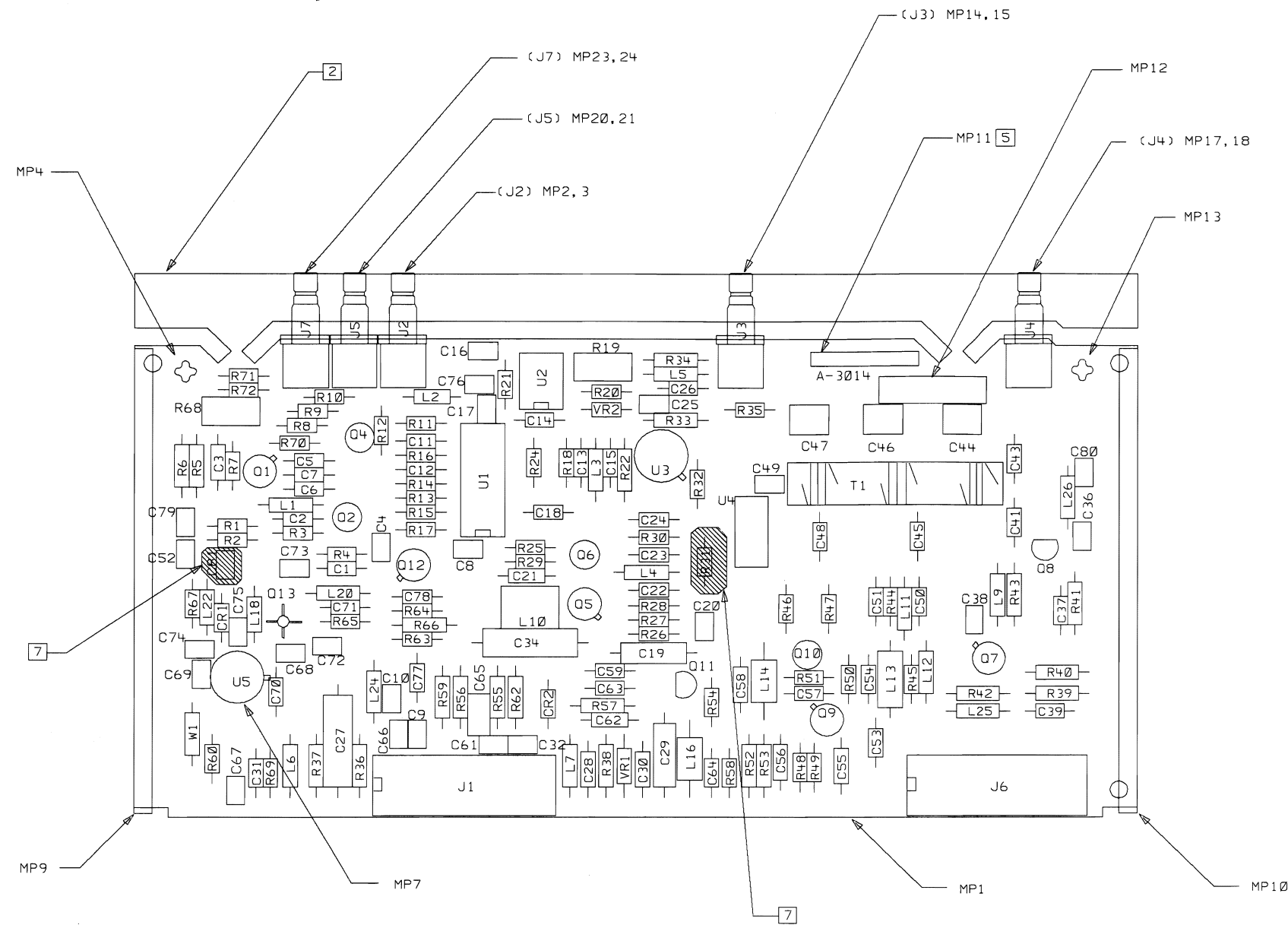
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By  
Artek Media**

S300		D-08593-60062-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 5300-08058		
B	CHANGED J2-5, PCO 53-08352 /RS		

*3rd con  
07593-60062*



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
- 2 REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .400.
4. MAX LEAD TRIM .100.
- 5 08593-60062 USES RAW BOARD 08590-20192  
ADD LABEL (MP11) TO MAKE DISTINCTION.
6. CHECK FOR MODIFICATIONS IN THE P.C. LINE  
ASSEMBLY DOCUMENTATION MANUAL A-08590-A9.
- 7 COMPONENTS HATCHED ARE NOT TO BE  
LOADED ON THIS ASSEMBLY.

SEE 08593-60062 MATERIAL LIST

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DO NOT DISCLOSE TO OR DUPLICATE FOR  
OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
3RD CONVERTER  
TITLE

aladb062	HEWLETT PACKARD
SCALE NONE	08593-60062 PART NUMBER
SHEET 1 OF 1	D-08593-60062-2



# **Component-Level Information Packet for 5063-0635**

## **Tracking Generator Control**



**HP Part No. 08590-90266  
Printed in USA August 1995**

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**HP Part Number 5063-0635  
Tracking Generator Control**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C2	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C3	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C4	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C5	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C6	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C7	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C8	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C9	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C10	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C11	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C12	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C13	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C14	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C15	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C16	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C17	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C18	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C19	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C20	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C21	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C22	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C23	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C24	0180-3849	1	CAP-FXD 47uF +-10% 10 V TA	28480	0180-3849
C25	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C26	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C27	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C28	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C29	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER COG	28480	0160-4819
C30	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C31	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C32	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C33	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C34	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C35	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422

\*Indicates factory-selected value

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**HP Part Number 5063-0635**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C37	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C40	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C41	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C42	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C43	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C44	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	28480	1901-1098
J1	1252-2009	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2009
J2	1252-2260	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2260
J3	1252-0501	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0501
L1	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L2	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L3	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L4	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L5	9140-0738	1	INDUCTOR 100uH .6W-INX.7LG-IN	28480	9140-0738
L6	9140-0238	1	INDUCTOR RF-CH-MLD 82uH +-5%	28480	9140-0238
MP3	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP5	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP6	0403-0630	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
P1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
Q1	1853-0213	1	TRANSISTOR PNP 2N4236 SI TO-39 PD=1W	28480	1853-0213
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q3	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q4	1855-0518	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0518
R1	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R2	0698-6343	1	RESISTOR 9K +-0.1% .125W TF TC=0+-25	28480	0698-6343
R3	0757-0424	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	28480	0757-0424
R4	0698-6321	1	RESISTOR 9.9K +-0.1% .125W TF TC=0+-25	28480	0698-6321
R5	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R6	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442

**HP Part Number 5063-0635**  
**Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R7	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R8	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R9	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R10	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R11	0698-6317	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	28480	0698-6317
R12	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R13	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R14	0698-8859	1	RESISTOR 12K +-0.1% .125W TF TC=0+-25	28480	0698-8859
R15	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R16	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R17	0698-3151	1	RESISTOR 2.87K +-1% .125W TF TC=0+-100	28480	0698-3151
R18	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R19	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R21	0698-3432	1	RESISTOR 26.1 +-1% .125W TF TC=0+-100	28480	0698-3432
R22	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R23	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R24	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R25	2100-3274	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	28480	2100-3274
R26	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R27	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R28	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R29	2100-3273	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	28480	2100-3273
R30	0757-0441	1	RESISTOR 8.25K +-1% .125W TF TC=0+-100	28480	0757-0441
R32	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R33	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R34	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R35	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R36	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R37	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R39	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R40	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R41	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R42	0698-6358	1	RESISTOR 100K +-0.1% .125W TF TC=0+-25	28480	0698-6358
R43	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320

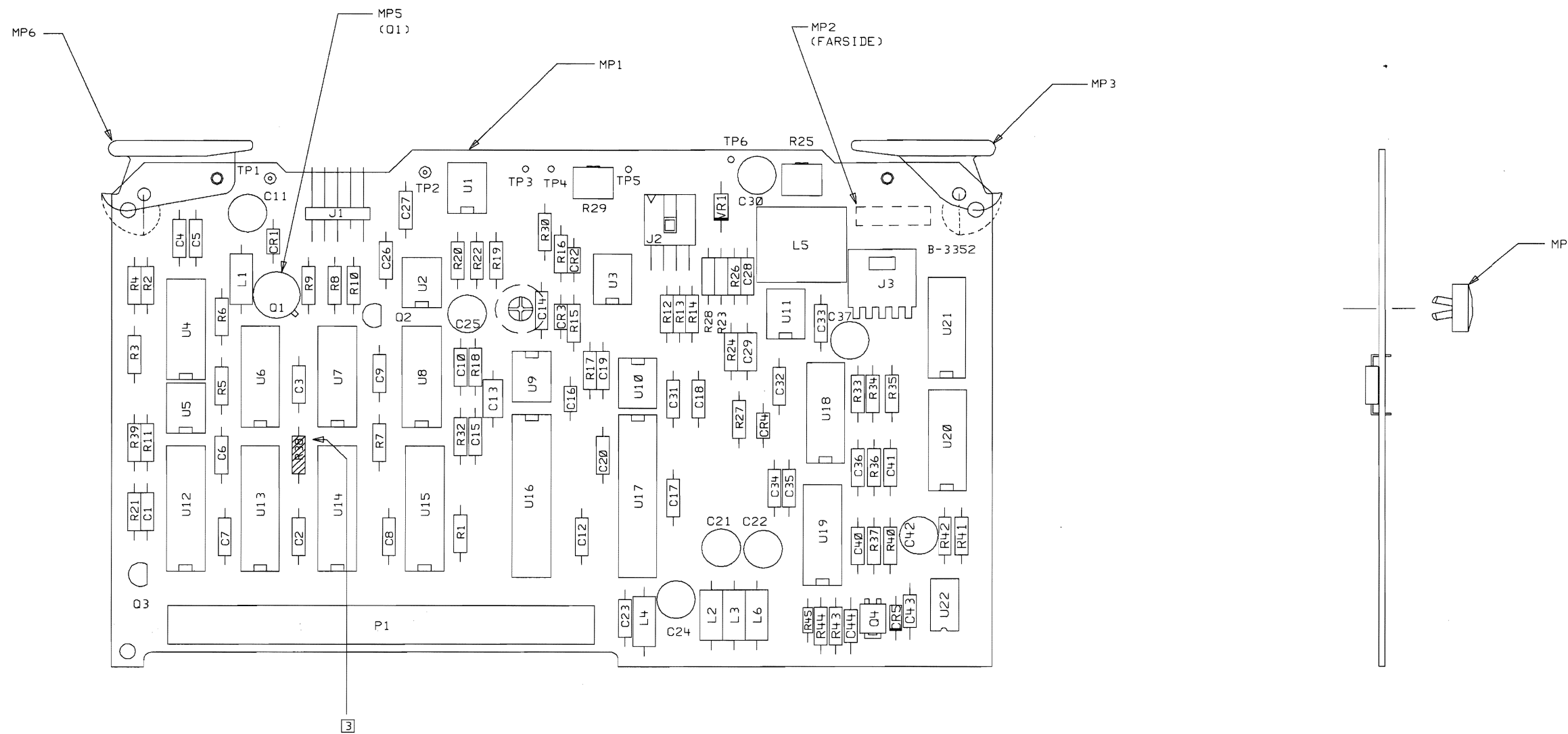
\*Indicates factory-selected value

CLIP 08590-90266 3

**HP Part Number 5063-0635  
Tracking Generator Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R44	0698-6320	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	28480	0698-6320
R45	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
TP1	0360-0077	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-0077	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP3	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U2	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U3	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U4	1826-0141	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U5	1826-2026	1	ANALOG SWITCH SPST 8 -DIP-P	28480	1826-2026
U6	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U7	1820-3079	1	IC DCDR-DEMURX CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U8	1826-2128	1	ANALOG SWITCH 8 CHNL 16 -DIP-P	28480	1826-2128
U9	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U10	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-C	28480	1826-1436
U11	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U12	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U13	1820-3790	1	IC LCH CMOS/HC D-TYPE OCTL	28480	1820-3790
U14	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U15	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U16	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U17	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U18	1826-0141	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U19	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U20	1820-3146	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3146
U21	1858-0047	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	28480	1858-0047
U22	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
VR1	1902-0551	1	DIODE-ZNR 6.2V 5% PD=1W IR=10UA	28480	1902-0551

5300		D-5063-0635-2	
REVISIONS		APPROVED	DATE
SYM	AS ISSUED (PCO 53-07720)	DM	
A			



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM LEAD TRIM LENGTH 0.118
3. DO NOT LOAD SHADED PARTS.
4. 5063-0635 USES RAW BOARD 5022-0995.

SEE MATERIAL LIST 5063-0635

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	TOLERANCES: XX.XXX ±.010 XX.XX ±.02		ENGINEER/CHECKER	DATE		SCALE NONE	
	THIRD ANGLE PROJECTION		RELEASE TO PROD.	DATE		SHEET 1 OF 1	
	DO NOT SCALE THIS DRAWING		SUPERSEDES DWG.			5063-0635 PART NUMBER	
						D-5063-0635-2	



# **Component-Level Information Packet for 5062-8232**

## **L.O.D.A. Control**



**HP Part No. 5961-0482  
Printed in USA May 1997**

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**HP Part Number 5062-8232**  
**L.O.D.A. Control**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C2	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C3	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C7	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C21	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C22	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C23	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C24	0180-3849	1	CAP-FXD 47uF +-10% 10 V TA	28480	0180-3849
C25	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C26	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C27	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C28	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C29	0160-4819	1	CAP-FXD 2200pF +-5% 100 V CER C0G	28480	0160-4819
C30	0180-3775	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3775
C32	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C33	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C34	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C35	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C36	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
J2	1252-2260	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2260
L2	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L3	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L4	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L5	9140-0738	1	INDUCTOR 100uH .6W-INX.7LG-IN	28480	9140-0738
MP3	0403-0626	1	EXTR-PC BD WHT NYL .062-IN-BD-THKNS	02123	91-2-WHITE-0
MP5	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
P1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
Q3	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R19	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R20	0698-6630	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0698-6630
R22	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R23	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R24	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416

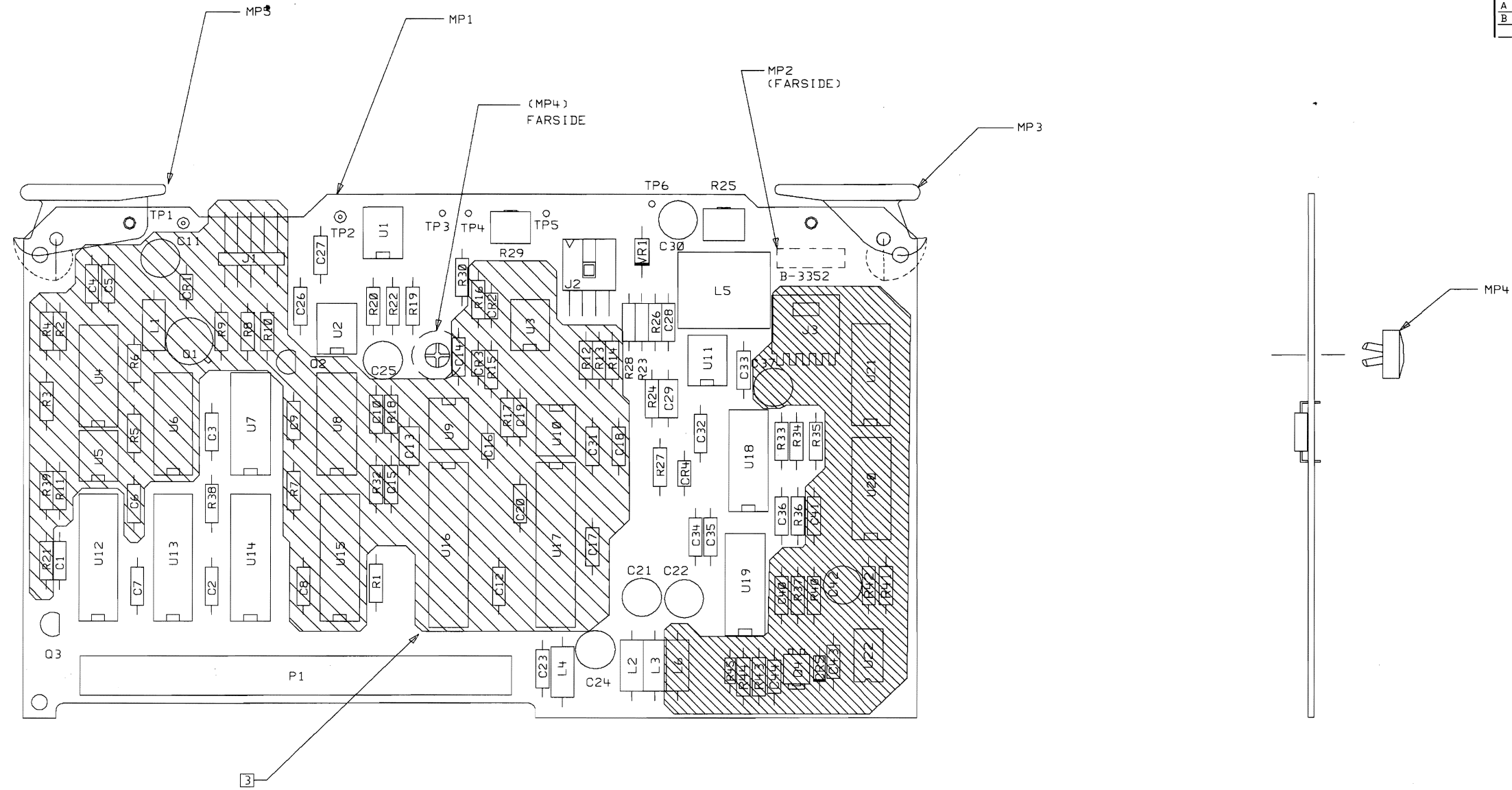
\*Indicates factory-selected value

CLIP 5961-0482 1

**HP Part Number 5062-8232  
L.O.D.A. Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R25	2100-3274	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	28480	2100-3274
R26	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R27	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R28	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R29	2100-3273	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	28480	2100-3273
R30	0757-0441	1	RESISTOR 8.25K +-1% .125W TF TC=0+-100	28480	0757-0441
R33	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R34	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R35	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R36	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R37	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R38	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
TP1	0360-0077	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP2	0360-0077	1	TERMINAL-STUD SGL-TUR SWGFRM-MTG	01461	1601-HP
TP3	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP4	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP5	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
TP6	0360-1682	1	TERMINAL-STUD SGL-TUR PRESS-MTG	05364	14758-8
U1	1826-1514	1	IC PWR MGT-V-REF-FXD 9.95/10.05V 8 PINS	28480	1826-1514
U2	1826-1436	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1436
U7	1820-3079	1	IC DCDR-DEMUXR CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U11	1826-1048	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1048
U12	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U13	1820-3790	1	IC LCH CMOS/HC D-TYPE OCTL	28480	1820-3790
U14	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U18	1826-0141	1	IC COMPARATOR GP DUAL 14 PIN DIP-C	28480	1826-0141
U19	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
VR1	1902-0551	1	DIODE-ZNR 6.2V 5% PD=1W IR=10UA	28480	1902-0551

5300		D-5062-8232-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07720		
B	CHANGED PER REVISED PCO		
	53-07720/	DM	



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM LEAD TRIM LENGTH 0.118
3. COMPONENTS SHOWN HATCHED ARE NOT LOADED ON THIS ASSEMBLY.
4. 5062-8232 USES RAW BOARD 5022-0995.

SEE MATERIAL LIST 5063-8232

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DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION   
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
TRACKING GEN  
CONTROL

TITLE

alimac232	FILENAME		HEWLETT PACKARD
SCALE	NONE		
SHEET	1 of 1	5062-8232	PART NUMBER
		D-5062-8232-2	

**J1 TG CONNECTOR**

PIN	SIGNAL	TD/FROM	FUNCTION BLOCK
1	+15V		B
2	ALC		H
3	-15V		H
4	TRK		F
5	MODE		H
6	ALC/LODA		H
7	TRK		F
8	TRK		F
9	TRK		F
10	TRK		F
11	TRK		F
12	TRK		F
13	TRK		F
14	TRK		F
15	TRK		F
16	TRK		F
17	TRK		F
18	ALC_EXT		C

**J2 LODA CONNECTOR**

PIN	SIGNAL	TD/FROM	FUNCTION BLOCK
1	+5V		H
2	LODA_SENSE		H
3	MODE		H
4	ALC		H
5	LODA_COM		H
6	TRK		F
7	+5V		H
8	+5V		H

**J3 OUTPUT ATTN CONNECTOR**

PIN	SIGNAL	TD/FROM	FUNCTION BLOCK
1	TRK		F
2	TRK		F
3	TRK		F
4	+15V		B

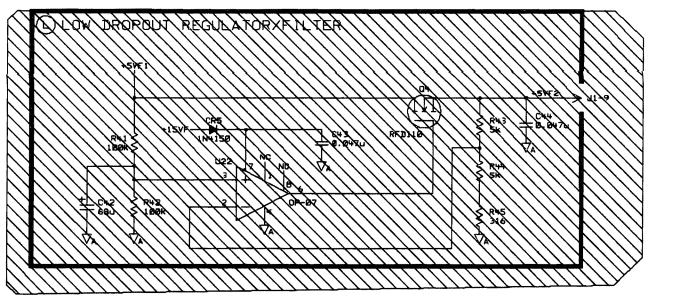
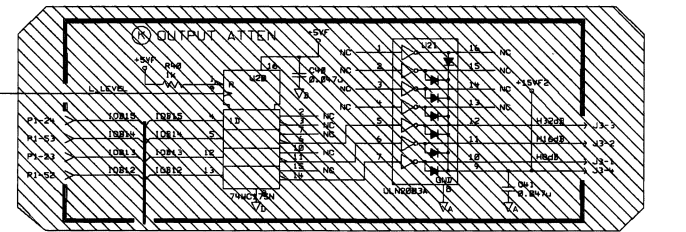
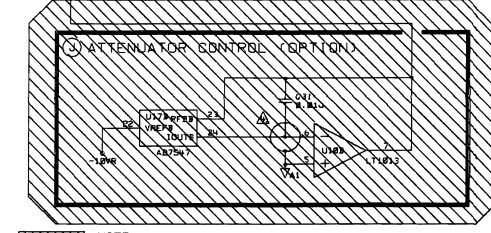
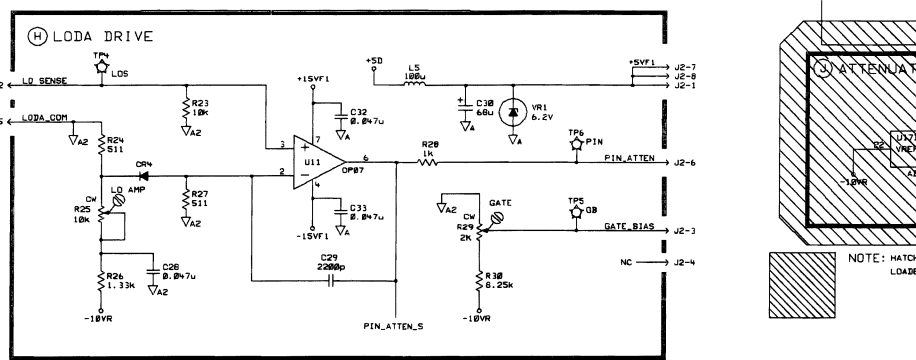
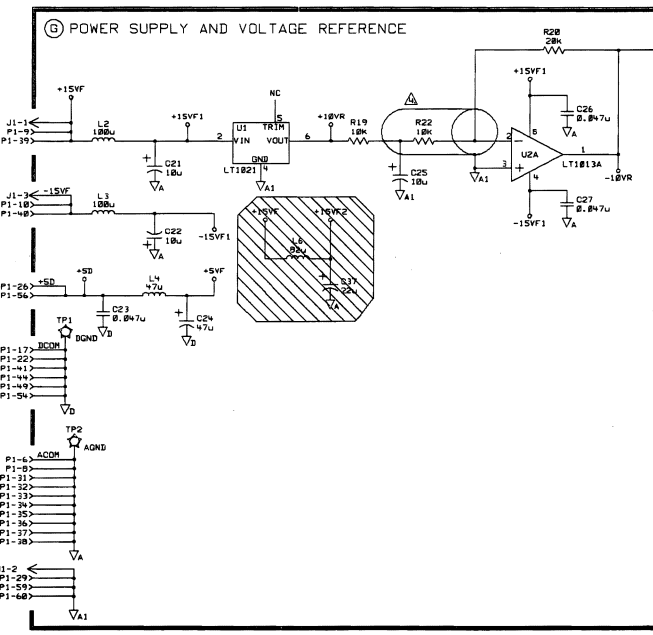
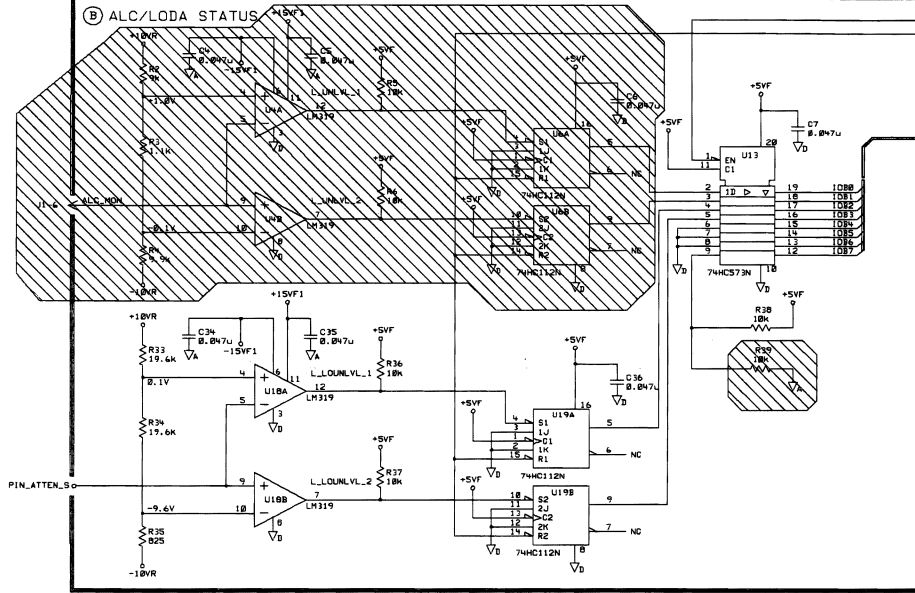
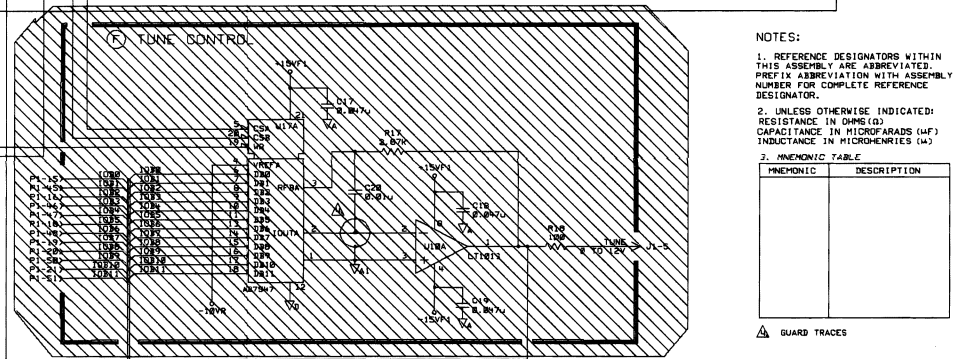
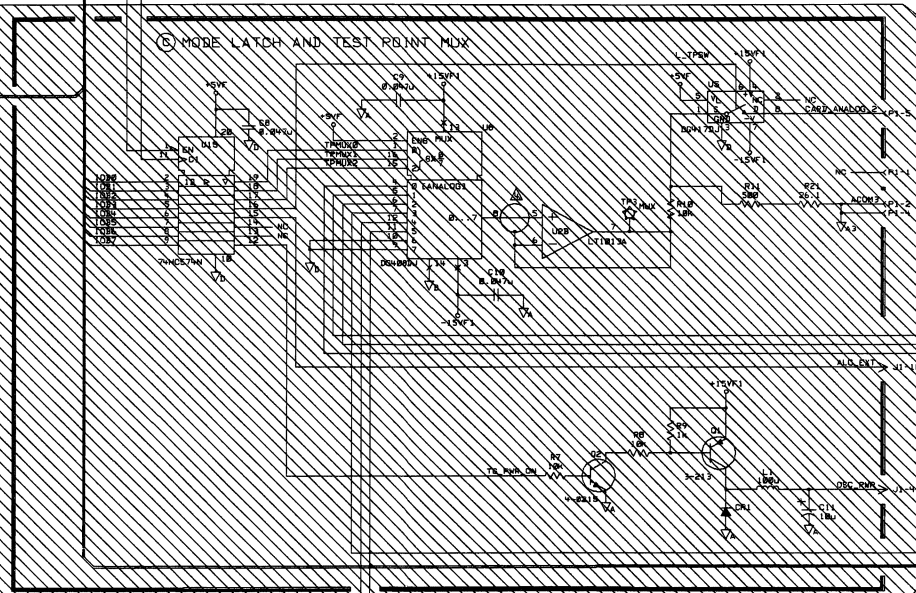
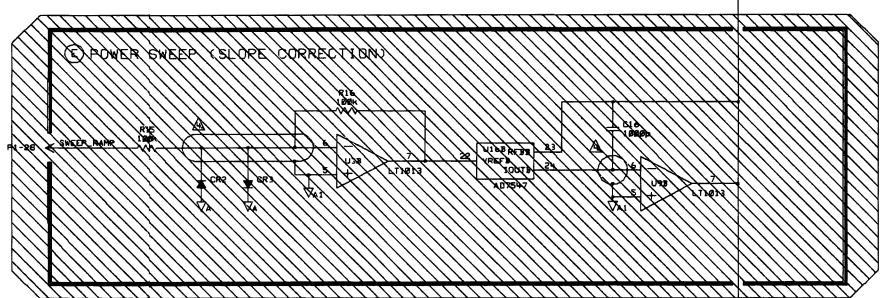
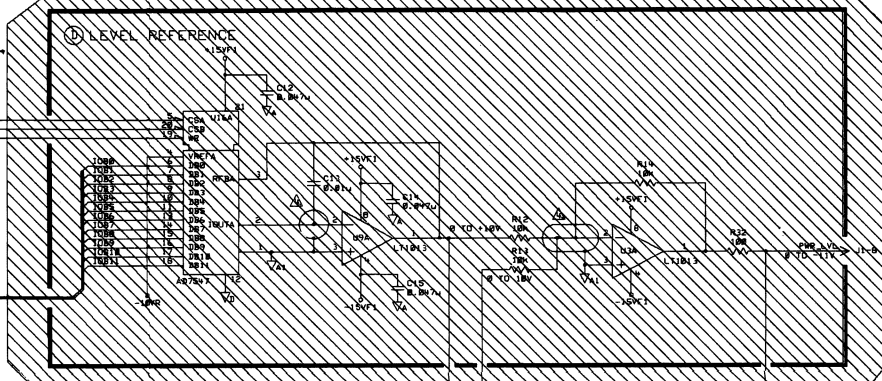
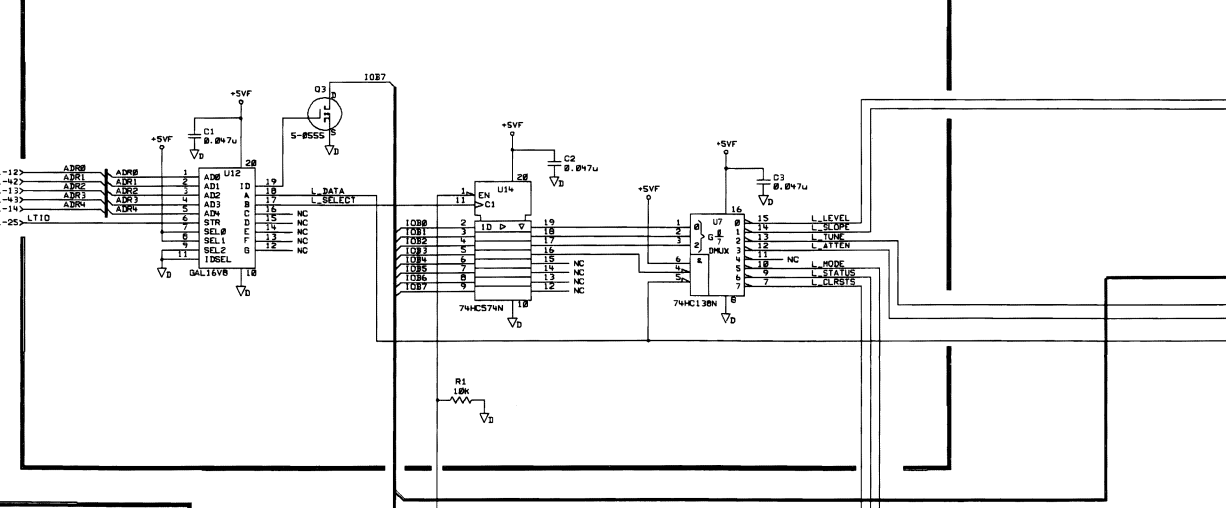
**P1**

PIN	SIGNAL	TD/FROM	FUNCTION BLOCK
1	ALC		H
2	ALC		H
3	ALC		H
4	ALC		H
5	ALC		H
6	ALC		H
7	ALC		H
8	ALC		H
9	ALC		H
10	ALC		H
11	ALC		H
12	ALC		H
13	ALC		H
14	ALC		H
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19	ALC		H
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26	ALC		H
27	ALC		H
28	ALC		H
29	ALC		H
30	ALC		H
31	ALC		H
32	ALC		H
33	ALC		H
34	ALC		H
35	ALC		H
36	ALC		H
37	ALC		H
38	ALC		H
39	ALC		H
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89	ALC		H
90	ALC		H
91	ALC		H
92	ALC		H
93	ALC		H
94	ALC		H
95	ALC		H
96	ALC		H
97	ALC		H
98	ALC		H
99	ALC		H
100	ALC		H

**P1 CONT.**

PIN	SIGNAL	TD/FROM	FUNCTION BLOCK
31	ALC		H
32	ALC		H
33	ALC		H
34	ALC		H
35	ALC		H
36	ALC		H
37	ALC		H
38	ALC		H
39	ALC		H
40	ALC		H
41	ALC		H
42	ALC		H
43	ALC		H
44	ALC		H
45	ALC		H
46	ALC		H
47	ALC		H
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61	ALC		H
62	ALC		H
63	ALC		H
64	ALC		H
65	ALC		H
66	ALC		H
67	ALC		H
68	ALC		H
69	ALC		H
70	ALC		H
71	ALC		H
72	ALC		H
73	ALC		H
74	ALC		H
75	ALC		H
76	ALC		H
77	ALC		H
78	ALC		H
79	ALC		H
80	ALC		H
81	ALC		H
82	ALC		H
83	ALC		H
84	ALC		H
85	ALC		H
86	ALC		H
87	ALC		H
88	ALC		H
89	ALC		H
90	ALC		H
91	ALC		H
92	ALC		H
93	ALC		H
94	ALC		H
95	ALC		H
96	ALC		H
97	ALC		H
98	ALC		H
99	ALC		H
100	ALC		H

**(A) ADDRESS DECODE AND SUB ADDRESS LATCH**



**NOTES:**  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)  
 3. UNKNOWN TABLE

PHONETIC	DESCRIPTION

▲ GUARD TRACES

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DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ENGINEER/CHECKER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 RELEASE TO PROD.: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SUPERSEDES DWG.: \_\_\_\_\_

SCHMATIC, PWA TRACKING GEN CONTROL  
 TITLE: \_\_\_\_\_  
 FILENAME: s1mac232  
 SCALE: NONE  
 SHEET 1 OF 1  
 5062-8232 PART NUMBER  
 D-5062-8232-1

# **Component-Level Information Packet for 08590-60407**

## **Bandwidth Filter**



**HP Part No. 08590-90291  
Printed in USA May 1997**

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**HP Part Number 08590-60407**  
**Bandwidth Filter**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C2	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C3	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C4	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C5	0160-3875	1	CAP-FXD 22pF +5% 200 V CER C0G	28480	0160-3875
C6	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C7	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C8	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C9	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C12	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C13	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C14	0160-6435	1	CAP-FXD 13pF +5% 100 V CER	28480	0160-6435
C15	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059
C16	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C17	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059
C18	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C19	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C20	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C21	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C22	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C23	0121-0036	1	CAP-VAR 18pF 5.5pF 350 V CER	28480	0121-0036
C24	0160-4491	1	CAP-FXD 8.2pF +-6.1% 200 V CER C0G	28480	0160-4491
C25	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059
C26	0160-5900	1	CAP-FXD 9.1pF +-5.49% 200 V CER C0G	28480	0160-5900
C27	0160-8117	1	CAP-FXD 63pF +5% 100 V CER	28480	0160-8117
C28	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C29	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C31	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C32	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C33	0160-4616	1	CAP-FXD 560pF +-5% 200 V CER C0G	28480	0160-4616
C34	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C35	0160-3879	1	CAP-FXD 0.01uF +20% 100 V CER X7R	28480	0160-3879
C36	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C37	0160-0576	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-0576
C38	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059

\*Indicates factory-selected value

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**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C39	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C40	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C41	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C42	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C43	0160-3872	1	CAP-FXD 2.2pF +-11.36% 200 V CER C0G	28480	0160-3872
C44	0160-6435	1	CAP-FXD 13pF +-5% 100 V CER	28480	0160-6435
C45	0121-0036	1	CAP-VAR 18pF 5.5pF 350 V CER	28480	0121-0036
C46	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C47	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059
C48	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C49	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C50	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C51	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C52	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C53	0160-5900	1	CAP-FXD 9.1pF +-5.49% 200 V CER C0G	28480	0160-5900
C54	0121-0059	1	CAP-VAR 8pF 2pF 350 V CER	28480	0121-0059
C55	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C56	0160-4491	1	CAP-FXD 8.2pF +-6.1% 200 V CER C0G	28480	0160-4491
C57	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C58	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C59	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C60	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C61	0160-4031	1	CAP-FXD 330pF +-5% 100 V CER C0G	28480	0160-4031
C62	0160-3873	1	CAP-FXD 4.7pF +-10.64% 200 V CER C0G	28480	0160-3873
C63	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C64	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C65	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C66	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C67	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C68	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C69	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C70	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C71	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C72	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C73	0160-4371	1	CAP-FXD 680pF +-5% 100 V CER C0G	28480	0160-4371



**HP Part Number 08590-60407**  
**Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C74	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C75	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C76	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C77	0160-0576	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-0576
C78	0160-8117	1	CAP-FXD 63pF +-5% 100 V CER	28480	0160-8117
C79	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C80	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C81	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C82	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C83	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C84	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C85	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C86	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C87	0160-4517	1	CAP-FXD 1.2pF +-20.8% 200 V CER C0G	28480	0160-4517
C88	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C89	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C90	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C91	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C92	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C93	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C94	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C95	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C96	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C97	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C98	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C100	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C101	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C102	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C103	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C104	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C105	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C106	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C107	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C108	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C109	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879

\*Indicates factory-selected value

**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C110	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C111	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C112	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C113	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C114	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR2	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR3	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR4	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR5	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR6	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR7	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR8	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR9	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR10	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR11	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR12	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR13	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR14	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR15	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR16	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR18	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR19	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
L1	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0144
L2	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L3	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L4	9100-3552	1	INDUCTOR RF-CH-MLD 1.5uH +-5%	28480	9100-3552
L5	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +-5%	28480	9100-3562
L6	9100-1625	1	INDUCTOR RF-CH-MLD 33uH +-5%	28480	9100-1625
L7	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L8	08590-80205	1	INDUCTOR 324NH	28480	08590-80205
L9	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L10	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +-5%	28480	9100-3313
L11	9140-0399	1	INDUCTOR RF-CH-MLD 2.2uH +-5%	28480	9140-0399
L12	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0144

**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L13	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +5%	28480	9100-3562
L14	9100-3552	1	INDUCTOR RF-CH-MLD 1.5uH +5%	28480	9100-3552
L15	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L16	9100-1625	1	INDUCTOR RF-CH-MLD 33uH +5%	28480	9100-1625
L17	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +5%	28480	9100-0539
L18	08590-80205	1	INDUCTOR 324NH	28480	08590-80205
L19	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +5%	28480	9100-0539
L20	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +5%	28480	9100-3313
L21	9140-0537	1	INDUCTOR RF-CH-MLD 2.2uH +5%	28480	9140-0537
L22	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L23	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L24	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L25	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L26	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L27	9100-1625	1	INDUCTOR RF-CH-MLD 33uH +5%	28480	9100-1625
L28	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L29	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +10%	28480	9140-0144
L30	9100-1625	1	INDUCTOR RF-CH-MLD 33uH +5%	28480	9100-1625
Q1	1854-0345	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q3	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q4	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q5	1855-0449	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	02237	
Q6	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q7	1855-0255	1	TRANSISTOR J-FET 2N5486 N-CHAN D-MODE	28480	1855-0255
Q8	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q9	1853-0007	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q10	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q11	1855-0449	1	TRANSISTOR J-FET 2N5434 N-CHAN D-MODE	02237	
Q12	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q13	1855-0255	1	TRANSISTOR J-FET 2N5486 N-CHAN D-MODE	28480	1855-0255
Q14	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q15	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q16	1853-0281	1	TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	02237	2N2907A
R1	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257

\*Indicates factory-selected value

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**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R2	0698-7259	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	28480	0698-7259
R3	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R4	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R5	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R6	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R7	0757-0397	1	RESISTOR 68.1 +-1% .125W TF TC=0+-100	28480	0757-0397
R8	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R9	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R10	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R11	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R12	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R13	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R14	0698-7200	1	RESISTOR 31.6 +-1% .05W TF TC=0+-100	28480	0698-7200
R15	0698-7245	1	RESISTOR 2.37K +-1% .05W TF TC=0+-100	28480	0698-7245
R16	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R17	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R18	0698-7216	1	RESISTOR 147 +-1% .05W TF TC=0+-100	28480	0698-7216
R19	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R20	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R21	0698-7246	1	RESISTOR 2.61K +-1% .05W TF TC=0+-100	28480	0698-7246
R22	0698-7246	1	RESISTOR 2.61K +-1% .05W TF TC=0+-100	28480	0698-7246
R23	0698-7242	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	28480	0698-7242
R24	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R25	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R26	2100-3154	1	RESISTOR-TRMR 1K 10% TKF SIDE-ADJ 17-TRN	28480	2100-3154
R27	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R28	0698-7259	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	28480	0698-7259
R29	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R30	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R31	2100-3052	1	RESISTOR-TRMR 50 10% TKF SIDE-ADJ 17-TRN	28480	2100-3052
R32	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R33	0698-7231	1	RESISTOR 619 +-1% .05W TF TC=0+-100	28480	0698-7231
R34	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R35	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R36	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205

**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R37	0757-0428	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	28480	0757-0428
R38	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R39	0698-7231	1	RESISTOR 619 +-1% .05W TF TC=0+-100	28480	0698-7231
R40	0698-3427	1	RESISTOR 13.3 +-1% .125W TF TC=0+-100	28480	0698-3427
R41	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R42	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R43	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R44	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R45	0698-7245	1	RESISTOR 2.37K +-1% .05W TF TC=0+-100	28480	0698-7245
R46	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R47	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R48	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R49	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R50	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R51	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R52	0698-7246	1	RESISTOR 2.61K +-1% .05W TF TC=0+-100	28480	0698-7246
R53	0698-7246	1	RESISTOR 2.61K +-1% .05W TF TC=0+-100	28480	0698-7246
R54	0698-8821	1	RESISTOR 5.62 +-1% .125W TF TC=0+-100	28480	0698-8821
R56	0698-7242	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	28480	0698-7242
R57	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R58	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R59	0757-0278	1	RESISTOR 1.78K +-1% .125W TF TC=0+-100	28480	0757-0278
R60	0698-3157	1	RESISTOR 19.6K +-1% .125W TF TC=0+-100	28480	0698-3157
R61	0698-7259	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	28480	0698-7259
R62	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R63	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R64	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R65	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R66	0757-0428	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	28480	0757-0428
R67	0698-7261	1	RESISTOR 11K +-1% .05W TF TC=0+-100	28480	0698-7261
R68	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R69	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R70	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R71	0698-3435	1	RESISTOR 38.3 +-1% .125W TF TC=0+-100	28480	0698-3435
R72	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398

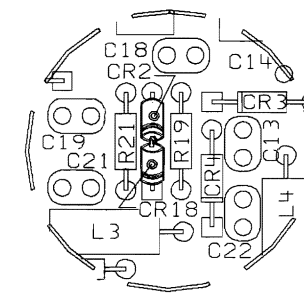
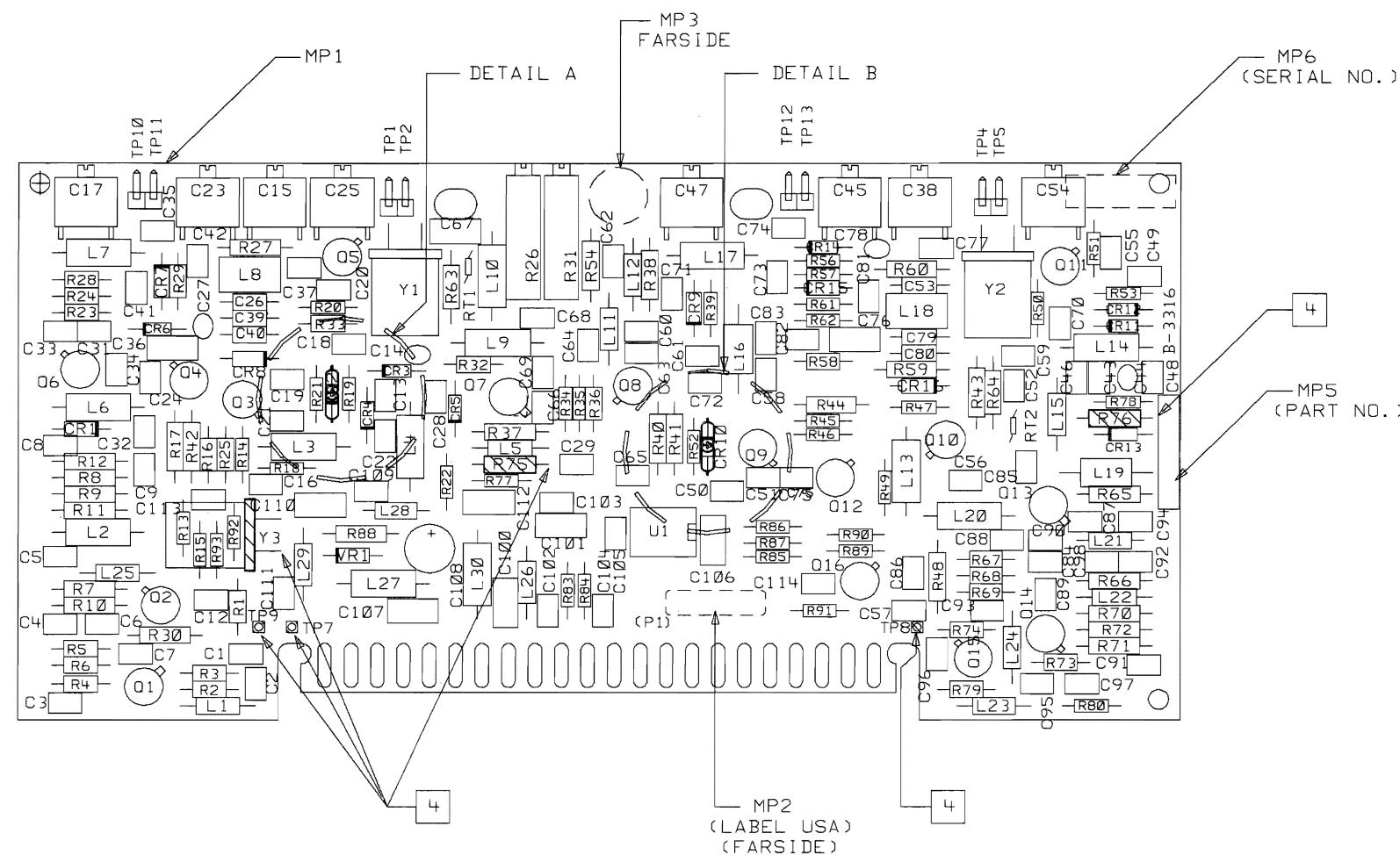
\*Indicates factory-selected value

CLIP 08590-90291 7

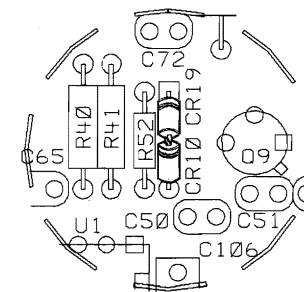
**HP Part Number 08590-60407  
Bandwidth Filter (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R73	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R74	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R77	0698-7256	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	28480	0698-7256
R78	0698-7256	1	RESISTOR 6.81K +-1% .05W TF TC=0+-100	28480	0698-7256
R79	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R80	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R83	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R84	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R85	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R86	0698-7246	1	RESISTOR 2.61K +-1% .05W TF TC=0+-100	28480	0698-7246
R87	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R88	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R89	0698-7242	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	28480	0698-7242
R90	0698-7257	1	RESISTOR 7.5K +-1% .05W TF TC=0+-100	28480	0698-7257
R91	0698-7264	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	28480	0698-7264
R92	0698-7226	1	RESISTOR 383 +-1% .05W TF TC=0+-100	28480	0698-7226
R93	0698-7223	1	RESISTOR 287 +-1% .05W TF TC=0+-100	28480	0698-7223
RT1	0837-0384	1	THERMISTOR DISC 330-OHM TC=-3.7%/C-DEG	10374	NTH5D331JA
RT2	0837-0384	1	THERMISTOR DISC 330-OHM TC=-3.7%/C-DEG	10374	NTH5D331JA
TP1	1252-3104	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3104
TP4	1252-3104	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3104
TP10	1252-3104	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3104
TP12	1252-3104	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3104
U1	1826-1461	1	IC OP AMP LOW-BIAS-H-IMPED 8 PIN DIP-P	28480	1826-1461
VR1	1902-0954	1	DIODE-ZNR 6.8V 5% DO-35 PD=.4W TC=+.057%	02037	SZ30035-1
Y1	0410-2118	1	PRECISION FILTER SET PRECISION FILTER	28480	0410-2118
Y2	0410-2118	1	PRECISION FILTER SET PRECISION FILTER	28480	0410-2118

S300		D-08590-60407-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-10597		



DETAIL A  
SCALE: NONE  
5



DETAIL B  
SCALE: NONE  
6

NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 08590-20222
2. MAXIMUM COMPONENT HEIGHT = .400
3. MAXIMUM LEAD TRIM LENGTH = .070
- 4 TP7, TP8, TP9, R74, R76 AND Y3 ARE NOT LOADED FOR THIS ASSEMBLY.
- 5 ADD CR18 IN SERIES WITH CR2 AS SHOWN IN DETAIL A.
- 6 ADD CR19 IN SERIES WITH CR10 AS SHOWN IN DETAIL B.

SEE 08590-60407 MATERIAL LIST

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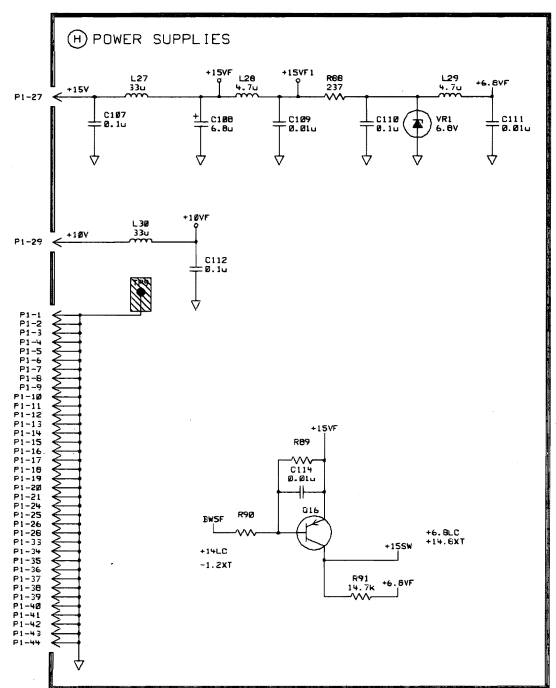
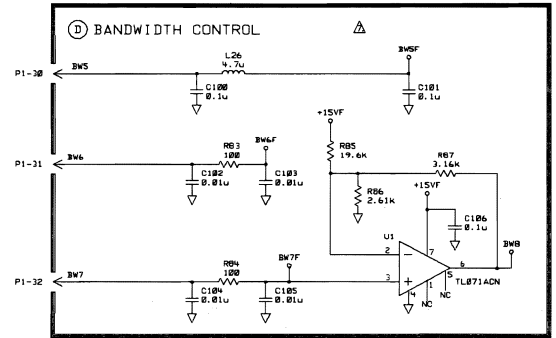
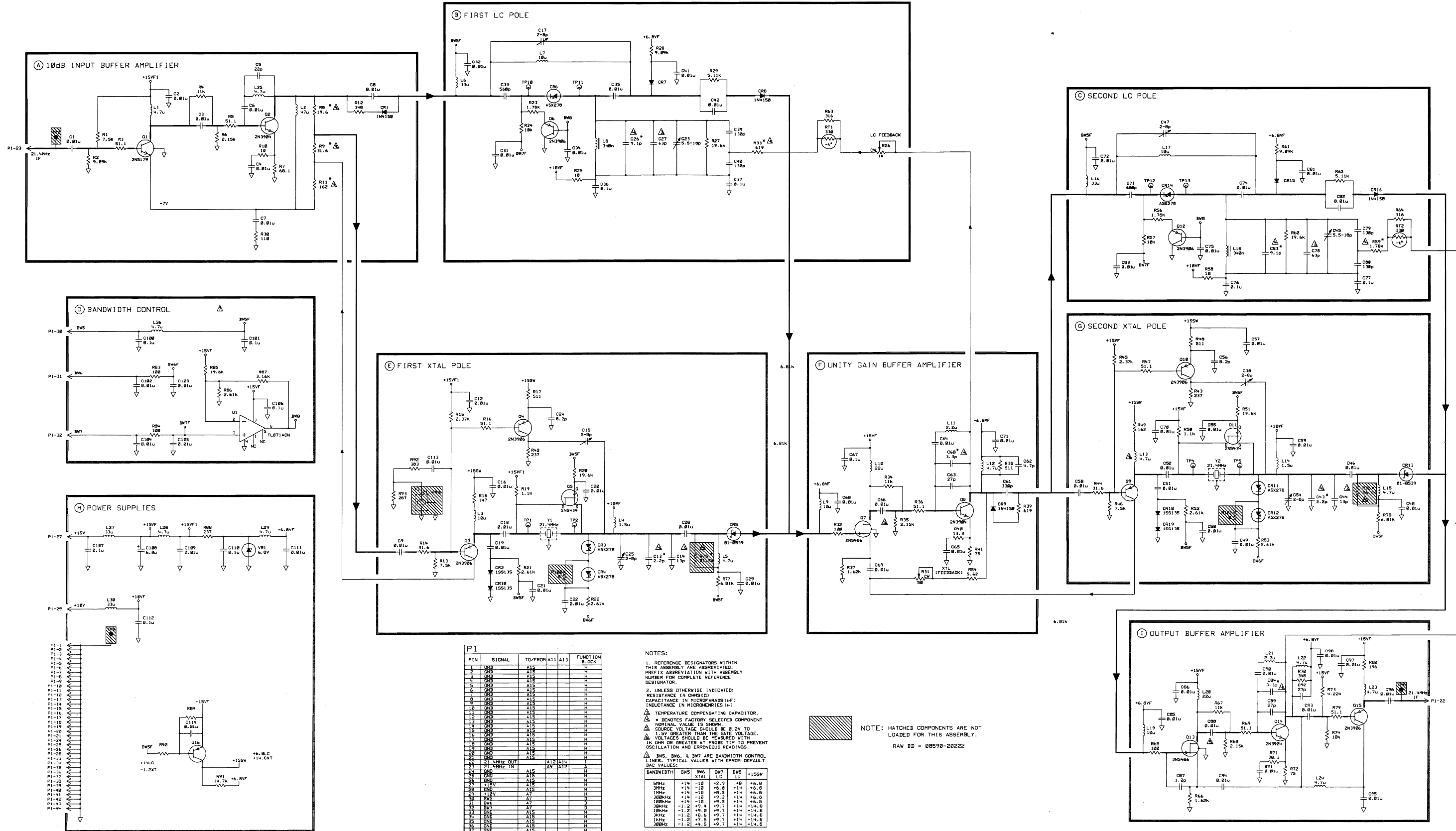
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
BANDWIDTH  
FILTER

a1abb407 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08590-60407 PART NUMBER
D-08590-60407-2	

TITLE



PIN	SIGNAL	TO/FROM A11 A13	FUNCTION BLOCK
1	CH1	A15	H
2	CH2	A15	H
3	CH3	A15	H
4	CH4	A15	H
5	CH5	A15	H
6	CH6	A15	H
7	CH7	A15	H
8	CH8	A15	H
9	CH9	A15	H
10	CH10	A15	H
11	CH11	A15	H
12	CH12	A15	H
13	CH13	A15	H
14	CH14	A15	H
15	CH15	A15	H
16	CH16	A15	H
17	CH17	A15	H
18	CH18	A15	H
19	CH19	A15	H
20	CH20	A15	H
21	CH21	A15	H
22	CH22	A15	H
23	CH23	A15	H
24	CH24	A15	H
25	CH25	A15	H
26	CH26	A15	H
27	CH27	A15	H
28	CH28	A15	H
29	CH29	A15	H
30	CH30	A15	H
31	CH31	A15	H
32	CH32	A15	H
33	CH33	A15	H
34	CH34	A15	H
35	CH35	A15	H
36	CH36	A15	H
37	CH37	A15	H
38	CH38	A15	H
39	CH39	A15	H
40	CH40	A15	H
41	CH41	A15	H
42	CH42	A15	H
43	CH43	A15	H
44	CH44	A15	H
45	CH45	A15	H
46	CH46	A15	H
47	CH47	A15	H
48	CH48	A15	H
49	CH49	A15	H
50	CH50	A15	H

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH).  
 \* TEMPERATURE COMPENSATING CAPACITOR.  
 Δ DENOTES FACTORY SELECTED COMPONENT NOMINAL VALUE IS SHOWN.  
 Δ SOURCE VOLTAGE SHOULD BE 0.2V TO 1.5V GREATER THAN THE GATE VOLTAGE.  
 Δ VOLTAGES SHOULD BE MEASURED WITH 1K OHM OR GREATER AT PROBE TIP TO PREVENT OSCILLATION AND ERRONEOUS READINGS.  
 Δ BWS, BW6, & BW7 ARE BANDWIDTH CONTROL LINES. TYPICAL VALUES WITH EPROM DEFAULT DAC VALUES:

BANDWIDTH	BWS	BW6	BW7	BW8	+15SW
5MHz	+14	-10	+2.5	+0	+6.0
3MHz	+14	-10	+6.0	+14	+6.0
1MHz	+14	-10	+0.5	+14	+6.0
300kHz	+14	-10	+9.2	+14	+6.0
150kHz	+14	-10	+0.5	+14	+6.0
30kHz	-1.2	+0.4	+9.7	+14	+14.0
15kHz	-1.2	+0.8	+9.7	+14	+14.0
3kHz	-1.2	+0.6	+9.7	+14	+14.0
1kHz	-1.2	+0.5	+9.7	+14	+14.0
300kHz	-1.2	+0.5	+9.7	+14	+14.0

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
 RAW 8D - 08590-20222

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DRAWN BY	DATE	SCHEMATIC, PWA BANDWIDTH FILTER	s1abb407 FILENAME
ENGINEER/CHECKER	DATE		SCALE NONE
RELEASE TO PROD.	DATE		SHEET 1 OF 1
SUPERSEDES DWG.			08590-60407 PART NUMBER
			D-08590-60407-1



# **Component-Level Information Packet for 08590-60105**

## **Amplitude Control**



**HP Part No. 08590-90121  
Printed in USA August 1995**

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**HP Part Number 08590-60105**  
**Amplitude Control**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C2	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C3	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C4	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C5	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C6	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C7	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C8	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C9	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C10	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C11	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C12	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C13	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C14	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C15	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C16	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C17	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C18	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C19	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C20	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C21	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C22	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C23	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C24	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C25	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C26	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C27	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C28	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C29	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C30	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C31	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C32	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C34	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C35	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C36	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554

\*Indicates factory-selected value

CLIP 08590-90121 1

**HP Part Number 08590-60105  
Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C38	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C39	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C40	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C41	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C42	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C43	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C44	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C45	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C46	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C47	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C48	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C49	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C50	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C51	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C52	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
CR1	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR2	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR6	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR7	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR8	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR9	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR10	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR11	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR12	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR13	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR14	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR15	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR16	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR17	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR18	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR19	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

**HP Part Number 08590-60105  
Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR20	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR21	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR22	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR23	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR24	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR25	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR26	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR27	1901-1117	1	DIODE-SWITCHING 30V	28480	1901-1117
CR28	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR29	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR30	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR31	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR32	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR33	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR34	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
J1	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
J2	1252-2816	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2816
L1	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +-5%	28480	9100-3313
L2	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +-5%	28480	9100-3313
L3	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +-5%	28480	9100-3313
R1	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R2	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R3	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R4	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R5	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R6	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R7	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R8	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R9	0698-6774	1	RESISTOR 150 +-0.1% .125W TF TC=0+-25	28480	0698-6774
R10	0698-6323	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0698-6323
R11	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R12	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R13	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R14	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R15	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346

\*Indicates factory-selected value

CLIP 08590-90121 3

**HP Part Number 08590-60105  
Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R16	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R17	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R18	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R19	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R20	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R21	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R22	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R23	0699-0689	1	RESISTOR 88.5 +-0.1% .125W TF TC=0+-25	28480	0699-0689
R24	0698-6774	1	RESISTOR 150 +-0.1% .125W TF TC=0+-25	28480	0698-6774
R25	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R26	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R27	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R28	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R29	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R30	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R31	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R32	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R33	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R34	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R35	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R36	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R37	0698-7644	1	RESISTOR 215 +-0.1% .125W TF TC=0+-25	28480	0698-7644
R38	0698-6354	1	RESISTOR 40 +-0.1% .125W TF TC=0+-25	28480	0698-6354
R39	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R40	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R41	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R42	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R43	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R44	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R45	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R46	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R47	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R48	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R49	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R50	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132

**HP Part Number 08590-60105**  
**Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R51	0698-6364	1	RESISTOR 50 +0.1% .125W TF TC=0+-25	28480	0698-6364
R52	0699-1637	1	RESISTOR 203.2 +0.1% .125W TF TC=0+-25	28480	0699-1637
R53	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R54	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R55	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R56	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R57	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R58	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R59	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R60	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R61	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R62	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R63	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R64	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R65	0699-0966	1	RESISTOR 25 +0.1% .125W TF TC=0+-25	28480	0699-0966
R66	0699-0992	1	RESISTOR 227.2 +-0.1% .125W TF TC=0+-25	28480	0699-0992
R67	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R68	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R69	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R70	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R71	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R72	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R73	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R74	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R76	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R77	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R78	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R79	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R80	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R81	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R82	0757-0417	1	RESISTOR 562 +-1% .125W TF TC=0+-100	28480	0757-0417
R83	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R84	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R86	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R87	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442

\*Indicates factory-selected value

**HP Part Number 08590-60105  
Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R88	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R90	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R91	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R92	0757-0398	1	RESISTOR 75 +-1% .125W TF TC=0+-100	28480	0757-0398
R93	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R94	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R95	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R96	0757-0417	1	RESISTOR 562 +-1% .125W TF TC=0+-100	28480	0757-0417
R97	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R98	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R100	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R101	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R102	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R104	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R105	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R106	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R107	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R108	0698-3442	1	RESISTOR 237 +-1% .125W TF TC=0+-100	28480	0698-3442
R109	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R110	0757-0417	1	RESISTOR 562 +-1% .125W TF TC=0+-100	28480	0757-0417
R111	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R112	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R113	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R114	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R115	0757-0428	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	28480	0757-0428
U1	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U2	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U3	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U4	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U5	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U6	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U7	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U8	1858-0086	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	28480	1858-0086
U9	1826-0557	1	IC OP AMP GP QUAD 14 PIN DIP-C	28480	1826-0557
U10	1826-0557	1	IC OP AMP GP QUAD 14 PIN DIP-C	28480	1826-0557



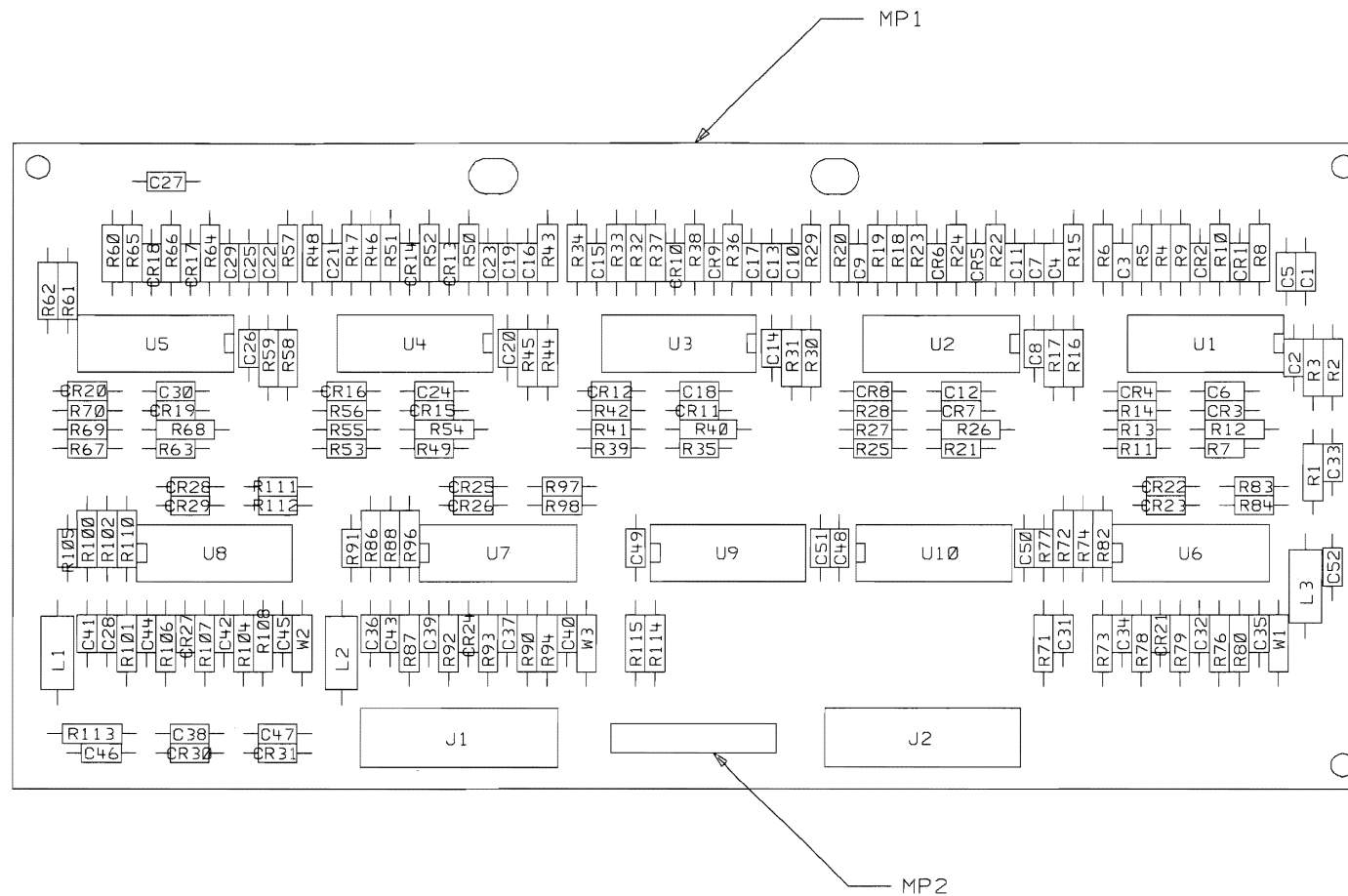
**HP Part Number 08590-60105**  
**Amplitude Control (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
W1	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W2	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W3	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005

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RELEASE TO PROD.	DATE
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ASSEMBLY, PWB  
 AMPLITUDE  
 CONTROL  
 TITLE

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SCALE NONE	
SHEET OF	08590-60105 PART NUMBER
C-08590-60105-2	



# **Component-Level Information Packet for 08590-60386**

## **Log Amplifier**



**HP Part No. 08590-90274  
Printed in USA May 1997**

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**HP Part Number 08590-60386**  
**Log Amplifier**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C2	0180-4130	1	CAP-FXD 2.2uF +-10% 20 V TA	28480	0180-4130
C3	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C4	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C5	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C6	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C7	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C8	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C9	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C10	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C11	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C12	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C14	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C15	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C16	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C17	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C18	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C19	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C20	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C21	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C22	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C23	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C24	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C25	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C26	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C27	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C28	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C29	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C30	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C31	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C32	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C33	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C34	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C36	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C37	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554

*\*Indicates factory-selected value*

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**HP Part Number 08590-60386**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C39	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C40	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C41	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C42	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C43	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C44	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C45	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C46	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C47	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C48	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C49	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C50	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C51	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C52	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C53	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C54	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C55	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C56	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C57	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C58	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C59	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C60	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C61	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C62	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C63	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C64	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C65	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C66	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C67	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C68	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C69	0160-4554	1	CAP-FXD 0.01uF +20% 50 V CER X7R	28480	0160-4554
C70	0160-4382	1	CAP-FXD 3.3pF +7.58% 200 V CER C0G	28480	0160-4382
C71	0160-4788	1	CAP-FXD 18pF +5% 100 V CER C0G	28480	0160-4788
C72	0160-3875	1	CAP-FXD 22pF +5% 200 V CER C0G	28480	0160-3875



**HP Part Number 08590-60386  
Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C73	0160-4387	1	CAP-FXD 47pF +5% 200 V CER C0G	28480	0160-4387
C77	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C78	0180-4136	1	CAP-FXD 10uF +-10% 20 V TA	28480	0180-4136
C79	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
CR1	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR6	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR7	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR8	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR9	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR10	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR11	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR12	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR13	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR14	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR15	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR16	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR17	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR18	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR19	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR20	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR21	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR22	1901-0040	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	02237	D3D2
CR23	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR24	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR25	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR26	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR27	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
CR28	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR29	1901-1070	1	DIODE-PIN 110V	28480	1901-1070
CR30	1901-1085	1	DIODE-SCHOTTKY SM SIG	28480	1901-1085
E1	9170-0029	1	CORE-SHIELDING BEAD	28480	9170-0029
J1	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
L1	9100-1618	1	INDUCTOR RF-CH-MLD 5.6uH +-10%	28480	9100-1618

*\*Indicates factory-selected value*

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**HP Part Number 08590-60386**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L2	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0144
L3	9140-0105	1	INDUCTOR RF-CH-MLD 8.2uH +-10%	28480	9140-0105
L4	9100-1619	1	INDUCTOR RF-CH-MLD 6.8uH +-10%	28480	9100-1619
L5	9100-1619	1	INDUCTOR RF-CH-MLD 6.8uH +-10%	28480	9100-1619
L6	9140-0114	1	INDUCTOR RF-CH-MLD 10uH +-10%	28480	9140-0114
L7	9140-0114	1	INDUCTOR RF-CH-MLD 10uH +-10%	28480	9140-0114
L8	9140-0114	1	INDUCTOR RF-CH-MLD 10uH +-10%	28480	9140-0114
L9	9140-0112	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0112
L10	9100-3562	1	INDUCTOR RF-CH-MLD 4.7uH +-5%	28480	9100-3562
L11	9100-3912	1	INDUCTOR RF-CH-MLD 15uH +-5%	28480	9100-3912
L12	9140-0454	1	INDUCTOR RF-CH-MLD 18uH +-5%	28480	9140-0454
L13	9100-3313	1	INDUCTOR RF-CH-MLD 22uH +-5%	28480	9100-3313
L14	9100-2257	1	INDUCTOR RF-CH-MLD 820nH +-10%	28480	9100-2257
P2	1252-3997	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-3997
Q1	1854-0637	1	TRANSISTOR NPN 2N2219A SI TO-5 PD=800MW	02237	2N2219A
Q2	1853-0281	1	TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	02237	2N2907A
Q3	1853-0281	1	TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	02237	2N2907A
Q4	1853-0015	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	02237	6592
Q5	1853-0015	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	02237	6592
Q6	1853-0563	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0563
Q7	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q8	1853-0015	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	02237	6592
Q9	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q10	1853-0015	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	02237	6592
Q11	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q12	1853-0015	1	TRANSISTOR PNP SI PD=200MW FT=500MHZ	02237	6592
Q13	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q14	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q15	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q16	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q17	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q18	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q19	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q20	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
Q24	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904

**HP Part Number 08590-60386  
Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q25	1854-0979	1	TRANSISTOR NPN SI TO-92 PD=350MW	28480	1854-0979
R1	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R2	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R3	0698-0084	1	RESISTOR 2.15K +-1% .125W TF TC=0+-100	28480	0698-0084
R4	0698-3430	1	RESISTOR 21.5 +-1% .125W TF TC=0+-100	28480	0698-3430
R5	0757-0443	1	RESISTOR 11K +-1% .125W TF TC=0+-100	28480	0757-0443
R6	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R7	0757-0465	1	RESISTOR 100K +-1% .125W TF TC=0+-100	28480	0757-0465
R8	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R9	0698-3450	1	RESISTOR 42.2K +-1% .125W TF TC=0+-100	28480	0698-3450
R10	2100-2633	1	RESISTOR-TRMR 1K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2633
R11	0698-3154	1	RESISTOR 4.22K +-1% .125W TF TC=0+-100	28480	0698-3154
R12	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R13	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R14	0757-0460	1	RESISTOR 61.9K +-1% .125W TF TC=0+-100	28480	0757-0460
R15	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R16	0757-0180	1	RESISTOR 31.6 +-1% .125W TF TC=0+-100	28480	0757-0180
R17	0757-0464	1	RESISTOR 90.9K +-1% .125W TF TC=0+-100	28480	0757-0464
R18	0698-3136	1	RESISTOR 17.8K +-1% .125W TF TC=0+-100	28480	0698-3136
R19	0698-3160	1	RESISTOR 31.6K +-1% .125W TF TC=0+-100	28480	0698-3160
R20	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R21	2100-2489	1	RESISTOR-TRMR 5K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2489
R22	0698-3453	1	RESISTOR 196K +-1% .125W TF TC=0+-100	28480	0698-3453
R23	2100-2514	1	RESISTOR-TRMR 20K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2514
R24	0757-0274	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	28480	0757-0274
R25	0757-0274	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	28480	0757-0274
R26	0757-0274	1	RESISTOR 1.21K +-1% .125W TF TC=0+-100	28480	0757-0274
R27	2100-2489	1	RESISTOR-TRMR 5K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2489
R28	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R29	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R30	2100-2522	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2522
R31	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R32	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R33	2100-2522	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2522
R34	2100-2521	1	RESISTOR-TRMR 2K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2521

*\*Indicates factory-selected value*

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**HP Part Number 08590-60386**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R35	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R36	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R37	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R38	0698-3151	1	RESISTOR 2.87K +-1% .125W TF TC=0+-100	28480	0698-3151
R39	2100-2520	1	RESISTOR-TRMR 50 20% TKF SIDE-ADJ 1-TRN	28480	2100-2520
R40	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	28480	0757-0442
R41	0757-0290	1	RESISTOR 6.19K +-1% .125W TF TC=0+-100	28480	0757-0290
R42	0757-0200	1	RESISTOR 5.62K +-1% .125W TF TC=0+-100	28480	0757-0200
R43	0757-0447	1	RESISTOR 16.2K +-1% .125W TF TC=0+-100	28480	0757-0447
R44	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R45	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R46	0698-3156	1	RESISTOR 14.7K +-1% .125W TF TC=0+-100	28480	0698-3156
R47	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R48	0698-3150	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	28480	0698-3150
R49	0698-3132	1	RESISTOR 261 +-1% .125W TF TC=0+-100	28480	0698-3132
R50	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R51	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R52	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R53	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R54	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R55	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R56	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R57	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R58	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R59	0698-3150	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	28480	0698-3150
R60	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R61	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R62	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R63	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R64	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R65	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R66	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R67	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R68	0698-8958	1	RESISTOR 511K +-1% .125W TF TC=0+-100	28480	0698-8958
R69	2100-2692	1	RESISTOR-TRMR 1M 20% TKF SIDE-ADJ 1-TRN	28480	2100-2692

**HP Part Number 08590-60386  
Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R70	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R71	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R72	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R73	0757-0444	1	RESISTOR 12.1K +-1% .125W TF TC=0+-100	28480	0757-0444
R74	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R75	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R76	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R77	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R78	0698-3150	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	28480	0698-3150
R79	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R80	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R81	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R82	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R83	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R84	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R85	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R86	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R87	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R88	2100-2522	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ 1-TRN	28480	2100-2522
R89	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R90	0757-0403	1	RESISTOR 121 +-1% .125W TF TC=0+-100	28480	0757-0403
R91	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R92	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R93	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R94	0698-3150	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	28480	0698-3150
R95	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R96	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R97	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R98	0757-0289	1	RESISTOR 13.3K +-1% .125W TF TC=0+-100	28480	0757-0289
R99	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R100	0757-0403	1	RESISTOR 121 +-1% .125W TF TC=0+-100	28480	0757-0403
R101	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R102	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R103	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R104	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401

*\*Indicates factory-selected value*

**CLIP 08590-90274 7**

**HP Part Number 08590-60386**  
**Log Amplifier (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R105	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R106	0757-0417	1	RESISTOR 562 +-1% .125W TF TC=0+-100	28480	0757-0417
R107	0757-0199	1	RESISTOR 21.5K +-1% .125W TF TC=0+-100	28480	0757-0199
R108	0698-3434	1	RESISTOR 34.8 +-1% .125W TF TC=0+-100	28480	0698-3434
R109	0757-0400	1	RESISTOR 90.9 +-1% .125W TF TC=0+-100	28480	0757-0400
R111	0698-3440	1	RESISTOR 196 +-1% .125W TF TC=0+-100	28480	0698-3440
R112	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R113	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R114	0698-6782	1	RESISTOR 250 +-0.1% .125W TF TC=0+-25	28480	0698-6782
R115	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R116	2100-0670	1	RESISTOR-TRMR 10K 10% TKF SIDE-ADJ	28480	2100-0670
R117	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R118	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
R129	0698-0083	1	RESISTOR 1.96K +-1% .125W TF TC=0+-100	28480	0698-0083
R130	0757-0279	1	RESISTOR 3.16K +-1% .125W TF TC=0+-100	28480	0757-0279
R131	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R132	0757-0290	1	RESISTOR 6.19K +-1% .125W TF TC=0+-100	28480	0757-0290
R133	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R134	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R135	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R136	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R137	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	28480	0757-0458
R138	0757-0294	1	RESISTOR 17.8 +-1% .125W TF TC=0+-100	28480	0757-0294
TP1	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP2	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP3	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP4	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP5	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP6	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP7	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP8	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP9	1460-2201	1	SPRING RADIAL TEST POINT	12646	
TP10	1460-2201	1	SPRING RADIAL TEST POINT	12646	
U1	1826-0139	1	IC OP AMP GP DUAL 8 PIN DIP-P	28480	1826-0139
U2	1826-0139	1	IC OP AMP GP DUAL 8 PIN DIP-P	28480	1826-0139

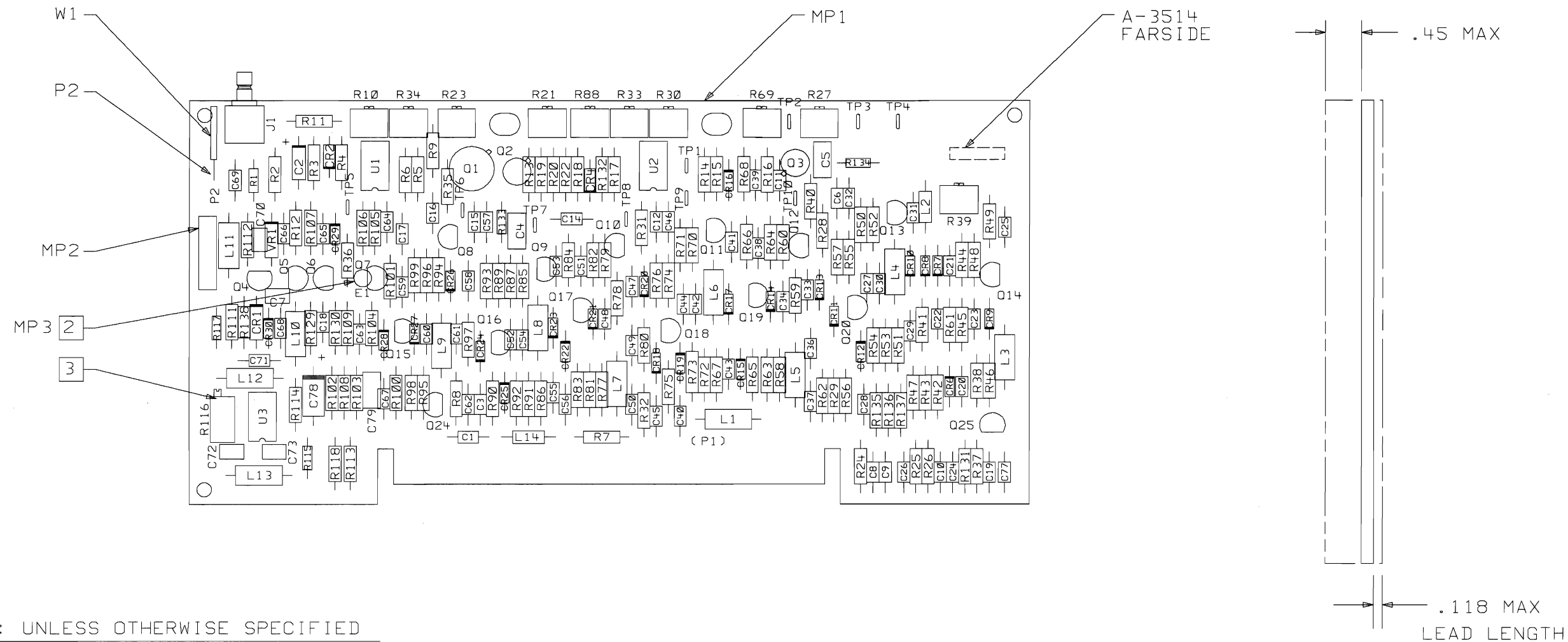
**HP Part Number 08590-60386  
Log Amplifier (continued)**

<b>Reference Designator</b>	<b>HP Part Number</b>	<b>Qty</b>	<b>Description</b>	<b>Mfr Code</b>	<b>Mfr Part Number</b>
U3	1826-2491	1	IC MISC 8 PIN DIP-P	28480	1826-2491
VR1	1902-0901	1	DIODE-ZNR 5.4V 1% DO-35 PD=.4W TC=+.046%	28480	1902-0901
W1	1258-0225	1	JUMPER 2 CONTACTS; PHOSPOR BRONZE OR	03206	65474-001

*\*Indicates factory-selected value*

**CLIP 08590-90274 9**

S300		D-08590-60386-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-08803 LN		



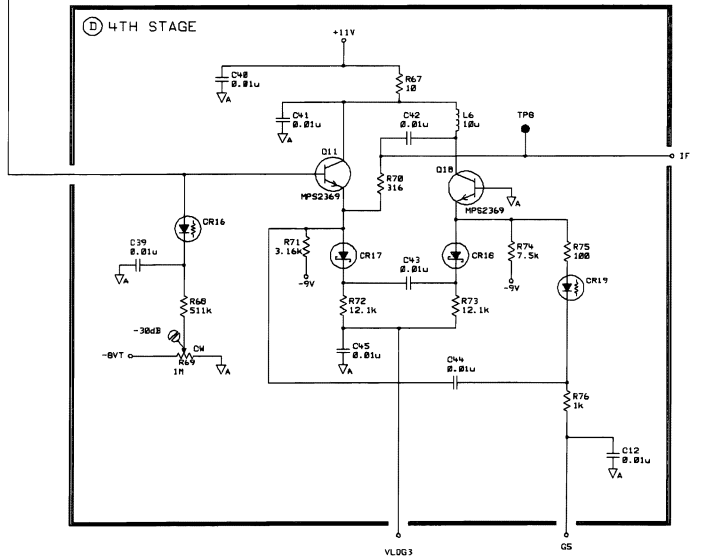
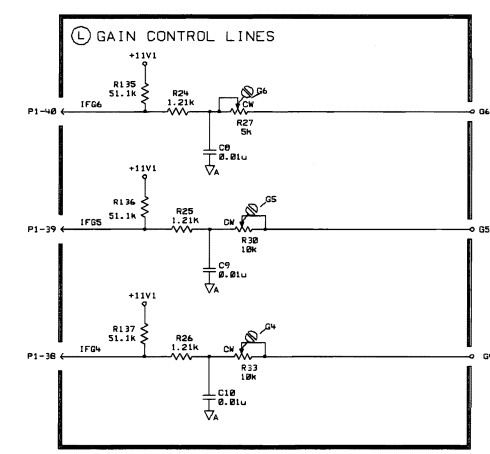
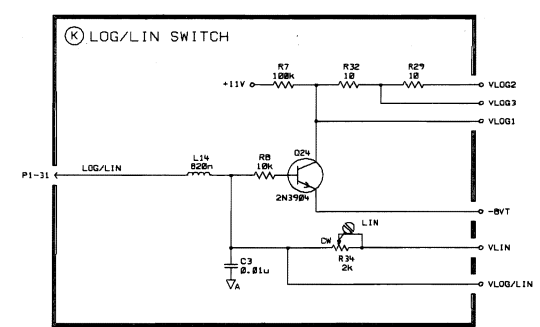
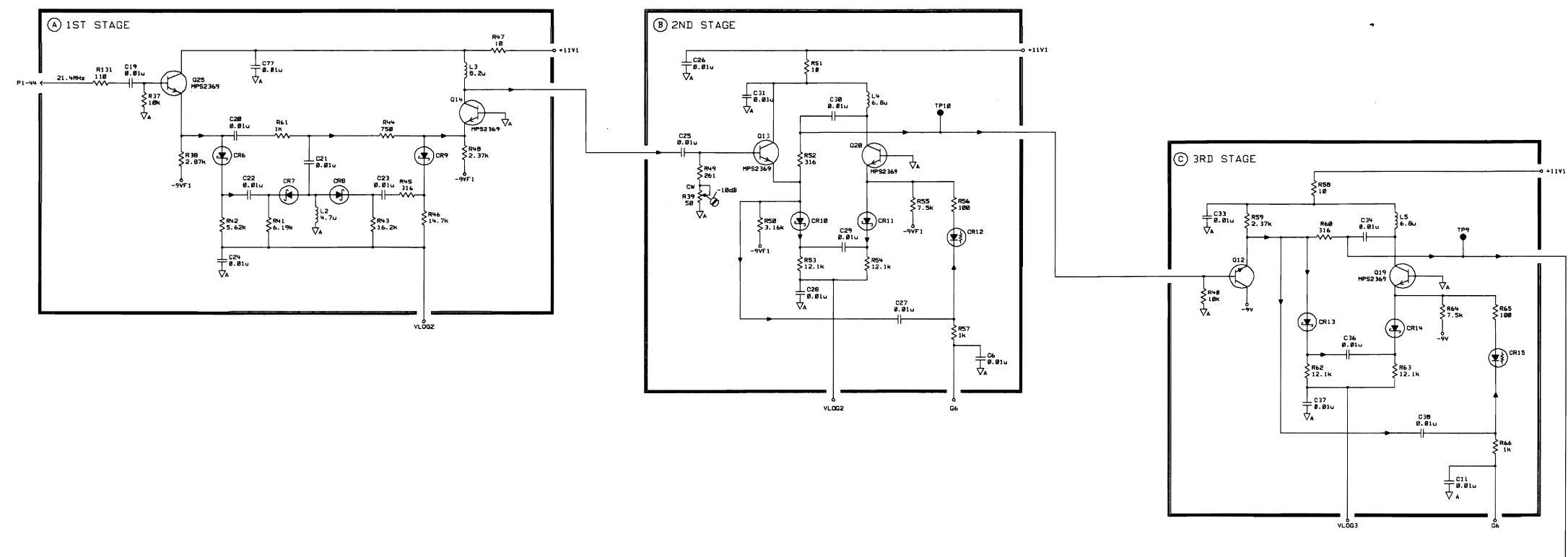
NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 08590-20386.
- 2 USE MP3 TO HOLD E1 TO BOARD.
- 3 WHEN R138 IS 0 Ω, R116 IS NOT LOADED.  
WHEN R138 IS GREATER THAN 0 Ω, LOAD R116.

SEE MATERIAL LIST 08590-60386

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	TOLERANCES: XX.XXX ±.010 XX.XX ±.02	ENGINEER/CHECKER	DATE	SCALE		NONE	
	THIRD ANGLE PROJECTION	RELEASE TO PROD.	DATE	SHEET 1 OF 1		08590-60386 PART NUMBER	
	DO NOT SCALE THIS DRAWING	SUPERSEDES DWG.	TITLE	D-08590-60386-2			





PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	0V	215	H
2	V18D	216	J
3	0V	215	H
4	0V	215	N
5	0V	215	N
6	0V	215	N
7	0V	215	N,K,P
8	-9V	215	H
9	0V	215	H
10	0V	215	H
11	0V	215	H
12	0V	215	H
13	0V	215	H
14	0V	215	H
15	0V	215	H
16	0V	215	H
17	0V	215	H
18	0V	215	H
19	0V	215	H
20	0V	215	H
21	0V	215	H
22	0V	215	H
23	0V	215	H
24	0V	215	H
25	0V	215	H
26	0V	215	H
27	0V	215	H
28	0V	215	H
29	0V	215	H
30	0V	215	H
31	LOG/LIN	24	K
32	0V	215	H
33	0V	215	H
34	0V	215	H
35	0V	215	H
36	0V	215	H
37	0V	215	H
38	0V	215	H
39	0V	215	H
40	0V	215	H
41	0V	215	H
42	0V	215	H
43	0V	215	H
44	21.4MHz	213	A

NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω) CAPACITANCE IN MICROFARADS (μF) INDUCTANCE IN MICROHENRIES (μH)  
 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION	FUNCTION BLOCK	SHEET 1	SHEET 2
V18D	LOG DIODE BIAS	A,K		E,F,G
V18E	LOG DIODE BIAS	B,K		
V18F	LOG DIODE BIAS	C,D,K		
V18G	ISOLATED LOG/LINEAR MODE CONTROL LINE	K		P
21.4 MHz	21.4 MHz IF INPUT	A		
+15V	+15 VOLT SUPPLY	D,K,L	H,N,O,P	
+11V	+11 VOLT REG SUPPLY	D,K,L	I,N,O,P	
+11V1	+11 VOLT REG SUPPLY	A,B,C		
+11V2	+11 VOLT REG SUPPLY		H,I,J,O	
-15V	-15 VOLT SUPPLY		H,N,P	
-9V	-9 VOLT REG SUPPLY	C,D	N,P	
-9V1	-9 VOLT REG SUPPLY	A,B		
-9V2	-9 VOLT REG SUPPLY		E,F,N	
-9V3	-9 VOLT REG SUPPLY		G,N,N	
-9V4	-9 VOLT REG SUPPLY		J,N	
-9V7	-9 VOLT TEMPERATURE DEPENDENT SUPPLY	D,K		P
0V, IF04	LINEAR MODE 180B STEP GAIN CONTROL	L		E
0V, IF05	LINEAR MODE 180B STEP GAIN CONTROL	D,L		
0V, IF06	LINEAR MODE 280B STEP GAIN CONTROL	B,C,L		
IF	IF PATH INTERCONNECT	D		E
LOG/LIN	LOG/LINEAR MODE CONTROL LINE	K		J
VIDEO	DETECTS VIDEO OUT	K		F,G
V1.1N	LINEAR MODE BIAS/ GAIN CONTROL	K		P

4. \* ASTERISK DENOTES FACTORY SELECTED COMPONENT. NOMINAL VALUE SHOWN.  
 Δ R21 TO AND R80 1VT FACTORY ADJUSTABLE ONLY.  
 ⚠ R138 IS FACTORY SELECT. ITS VALUE CAN VALUE CAN RANGE FROM 0-40 Ω.  
 ⚠ WHEN R138 = 0 Ω, R116 IS NOT LOADED. WHEN R138 > 0 Ω, LOAD R116.

MNEMONIC	SHEET
0V	1
0V	2
0V	L
0V	E
0V	D,L
0V	D,C,L
0V	D
0V	E
0V	C,D
0V	A,K
0V	B,K
0V	E,F,G
0V	C,D,K
0V	P

HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY  
 RAM BD = 08590-20386

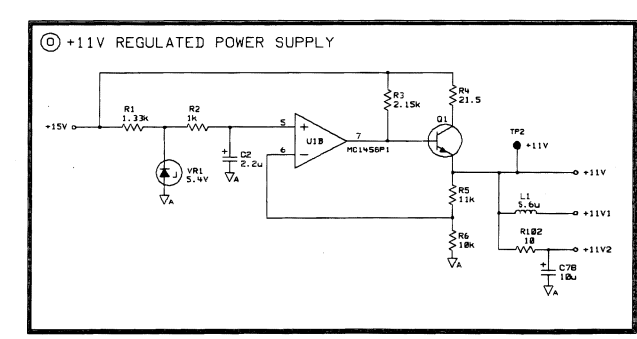
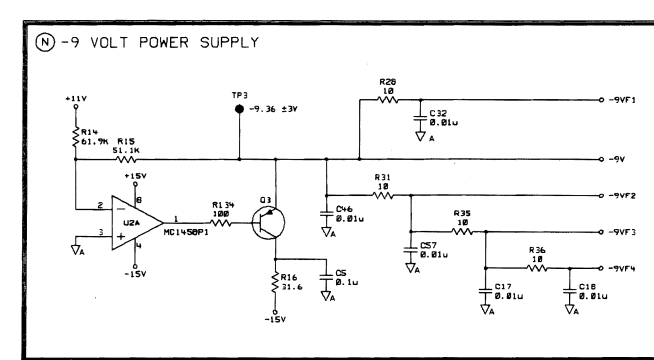
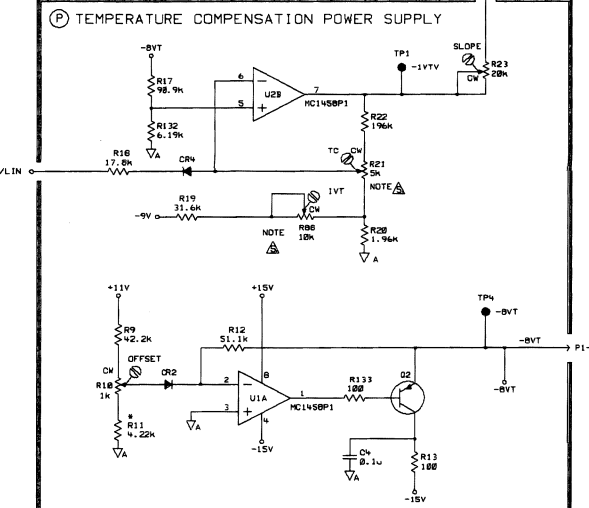
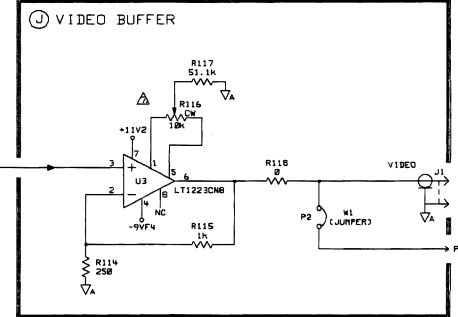
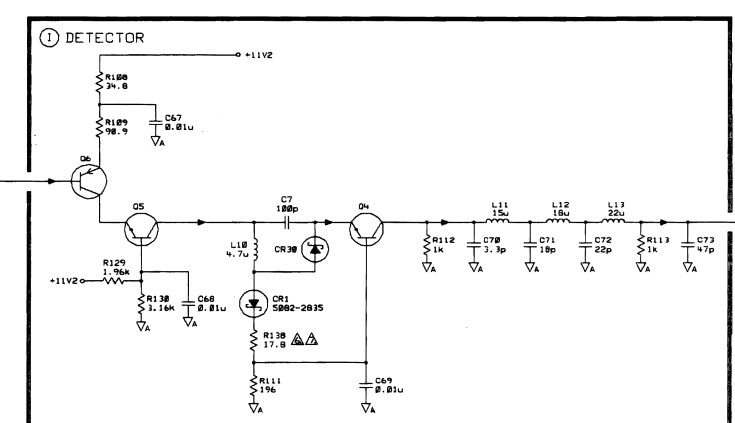
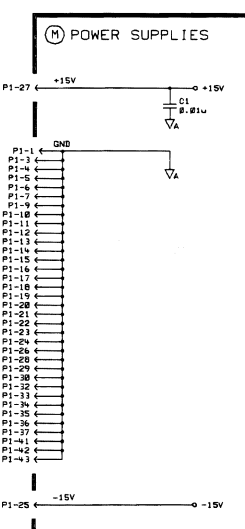
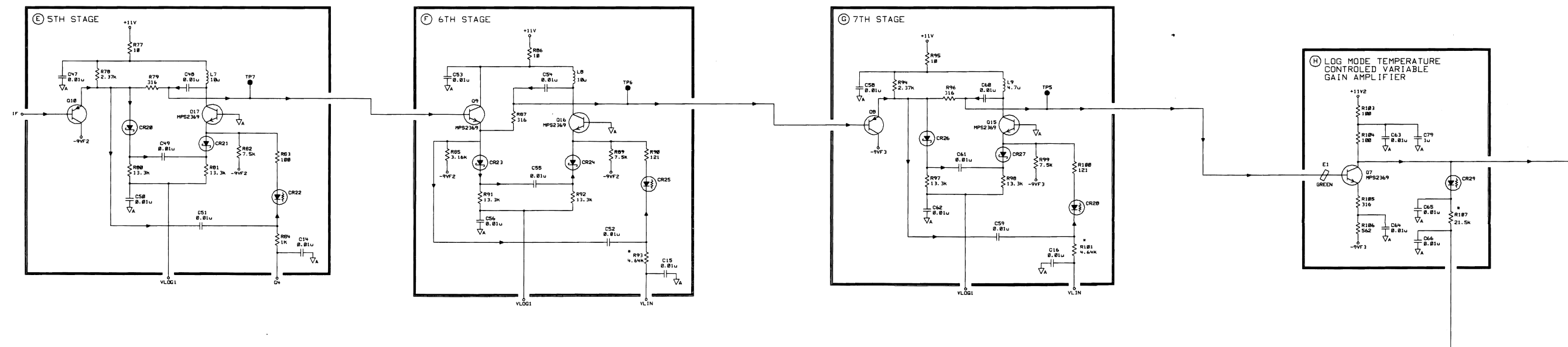
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DRAWN BY \_\_\_\_\_ DATE \_\_\_\_\_  
 ENGINEER/CHECKER \_\_\_\_\_ DATE \_\_\_\_\_  
 RELEASE TO PROD. \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERSEDES DWG. \_\_\_\_\_

SCHEMATIC, PWA  
 LOG AMPLIFIER  
 TITLE

s1abb386  
 FILENAME  
 SCALE NONE  
 SHEET 1 OF 2  
 08590-60386  
 PART NUMBER  
 D-08590-60386-1

S300 BA3514		D-08590-60386-1	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-08803 LN		11-09-95
B	CHANGED PER PCO 53-09492 /GH		07-11-96



Mnemonic	SHEET	
	1	2
Q1	L	E
Q2	D,L	E
Q3	B,C,L	E
IF	D	E
VLIN	A,K	E,F,G
VLOG1	A,K	E,F,G
VLOG2	B,K	E,F,G
VLOG3	C,D,K	P
VLOG/LIN	K	P

HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY  
RAW 9D = 08590-20386

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	ENGINEER/CHECKER	DATE		<p>NONE SCALE</p>	
	RELEASE TO PROD.	DATE		<p>2 of 2 SHEET</p>	
	SUPERSEDES DWG.			<p>08590-60386 PART NUMBER</p>	
				<p>D-08590-60386-1</p>	

# **Component-Level Information Packet for 08590-60218**

## **Motherboard**



**HP Part No. 08590-90217  
Printed in USA August 1995**

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**HP Part Number 08590-60218  
Motherboard**

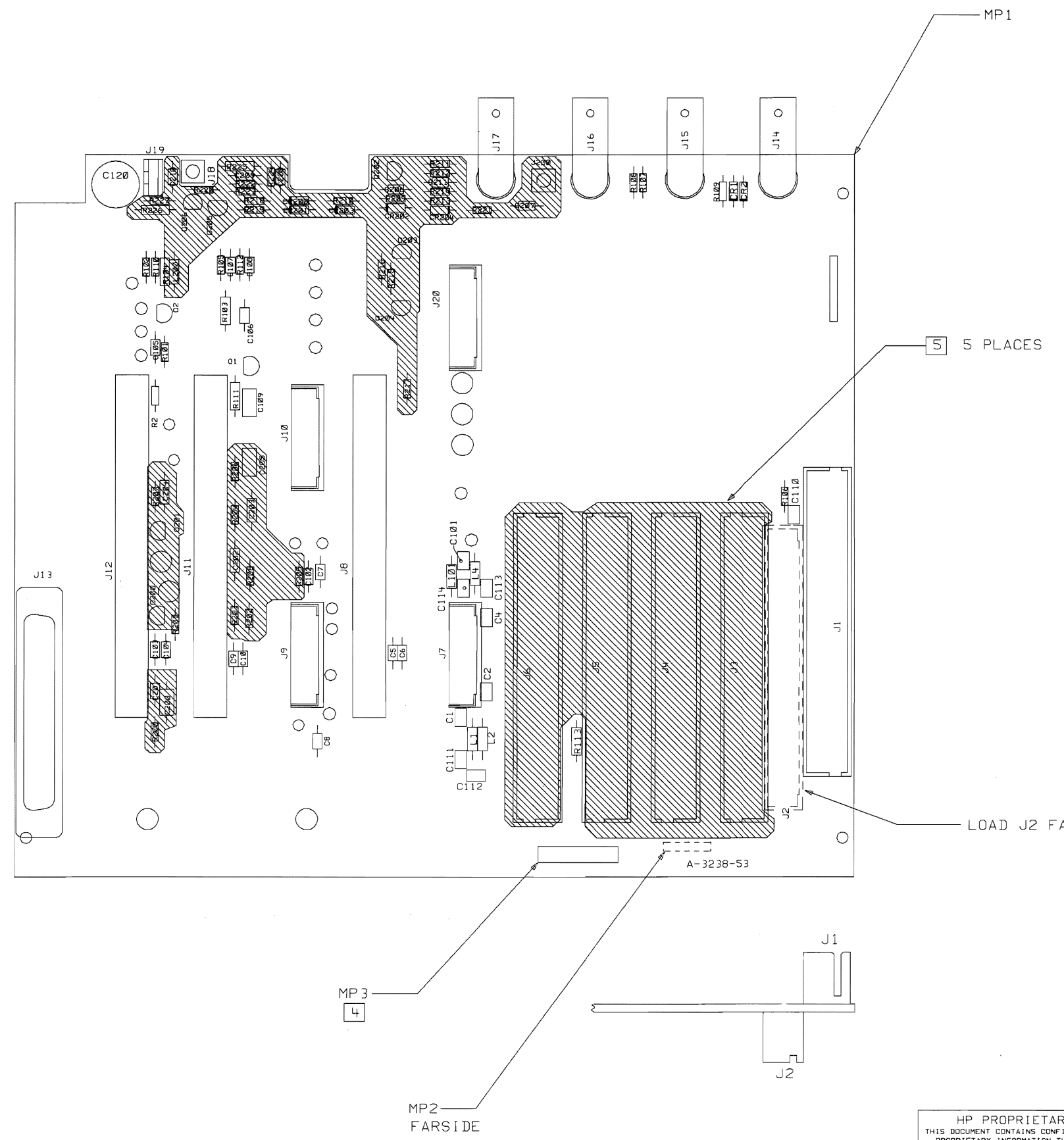
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C2	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C4	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C5	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C6	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C7	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C8	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C9	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C101	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C102	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C103	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C104	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C105	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C106	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C107	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C108	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C109	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C110	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C111	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C112	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C113	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C114	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C120	0180-4069	1	CAP-FXD 1000uF +-20% 25 V AL-ELCTLT	28480	0180-4069
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J2	1252-2909	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2909
J7	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J8	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J9	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J10	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J11	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J12	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J13	1251-8995	1	CONN-RECT D-SUBMIN 37-CKT 37-CONT	28480	1251-8995

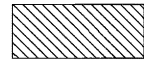
*\*Indicates factory-selected value*


**CLIP 08590-90217 1**

**HP Part Number 08590-60218  
Motherboard (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
J14	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J15	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J16	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J17	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J18	1250-0257	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0257
J19	1252-2153	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2153
J20	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
L1	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L2	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L4	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L101	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
Q1	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
R2	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R101	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R102	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R103	0698-3440	1	RESISTOR 196 +-1% .125W TF TC=0+-100	28480	0698-3440
R104	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R105	0698-7227	1	RESISTOR 422 +-1% .05W TF TC=0+-100	28480	0698-7227
R106	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R107	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R108	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R109	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R110	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R111	0757-0316	1	RESISTOR 42.2 +-1% .125W TF TC=0+-100	28480	0757-0316
R112	0698-7206	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	28480	0698-7206
R113	0698-8960	1	RESISTOR 750K +-1% .125W TF TC=0+-100	28480	0698-8960



- NOTE: UNLESS OTHERWISE SPECIFIED
1. MAXIMUM COMPONENT HEIGHT .460
  2. MAXIMUM LEAD TRIM LENGTH .080
  3. ALL CONNECTORS MUST BE FLUSH TO BOARD SURFACE AFTER MACHINE SOLDER
  - 4 PLACE MP3 OVER EXISTING BOARD NUMBER
  - 5  HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY
  6. SEE 08590-60218 FOR MATERIAL LIST

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	TOLERANCES: XX.XXX ±.010 XX.XX ±.02		ENGINEER/CHECKER	DATE		SCALE NONE	
	THIRD ANGLE PROJECTION		RELEASE TO PROD.	DATE		SHEET 1 OF 1	
	DO NOT SCALE THIS DRAWING		SUPSEDES DWG.			PART NUMBER	
						08590-60218 D-08590-60218-2	





# **Component-Level Information Packet for 08591-60062**

## **Motherboard**



**HP Part No. 08591-90103  
Printed in USA August 1995**

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**HP Part Number 08591-60062  
Motherboard**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C2	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C4	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C5	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C6	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C7	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C8	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C9	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C101	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C102	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C103	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C104	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C105	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C106	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C107	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C108	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C109	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C110	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER COG	28480	0160-4386
C111	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER COG	28480	0160-4386
C112	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER COG	28480	0160-4386
C113	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER COG	28480	0160-4386
C114	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER COG	28480	0160-4386
C120	0180-4069	1	CAP-FXD 1000uF +-20% 25 V AL-ELCTLT	28480	0180-4069
C200	0160-4846	1	CAP-FXD 1500pF +-5% 100 V CER COG	28480	0160-4846
C201	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C202	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C203	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C204	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C205	0160-4535	1	CAP-FXD 1uF +-10% 50 V CER X7R	28480	0160-4535
C206	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C207	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C208	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C209	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C210	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832

*\*Indicates factory-selected value*

**CLIP 08591-90103 1**

**HP Part Number 08591-60062  
Motherboard (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C211	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
CR1	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR200	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR201	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR202	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR203	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR204	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
J1	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J2	1252-2909	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2909
J3	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J4	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J5	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J6	1251-8911	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8911
J7	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J8	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J9	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J10	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J11	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J12	1251-1365	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
J13	1251-8995	1	CONN-RECT D-SUBMIN 37-CKT 37-CONT	28480	1251-8995
J14	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J15	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J16	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J17	1250-1846	1	CONNECTOR-RF BNC RCPT PC-W-STDFS 50-OHM	28480	1250-1846
J18	1250-0257	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0257
J19	1252-2153	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2153
J20	1252-2908	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2908
J200	1250-0257	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0257
L1	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L2	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L4	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L101	9140-0158	1	INDUCTOR RF-CH-MLD 1uH +-10%	28480	9140-0158
L200	9100-2276	1	INDUCTOR RF-CH-MLD 100uH +-10%	28480	9100-2276
Q1	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215

**HP Part Number 08591-60062  
Motherboard (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q200	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q201	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q202	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q203	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q204	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q205	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q206	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
R2	0698-7217	1	RESISTOR 162 +-1% .05W TF TC=0+-100	28480	0698-7217
R101	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R102	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R103	0698-3440	1	RESISTOR 196 +-1% .125W TF TC=0+-100	28480	0698-3440
R104	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R105	0698-7227	1	RESISTOR 422 +-1% .05W TF TC=0+-100	28480	0698-7227
R106	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R107	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R108	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R109	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R111	0757-0316	1	RESISTOR 42.2 +-1% .125W TF TC=0+-100	28480	0757-0316
R112	0698-7206	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	28480	0698-7206
R200	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R201	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R202	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R203	0698-7227	1	RESISTOR 422 +-1% .05W TF TC=0+-100	28480	0698-7227
R204	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R205	0698-7227	1	RESISTOR 422 +-1% .05W TF TC=0+-100	28480	0698-7227
R206	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R207	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R208	0698-7249	1	RESISTOR 3.48K +-1% .05W TF TC=0+-100	28480	0698-7249
R209	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R210	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R211	0698-7267	1	RESISTOR 19.6K +-1% .05W TF TC=0+-100	28480	0698-7267
R212	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R213	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R214	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260

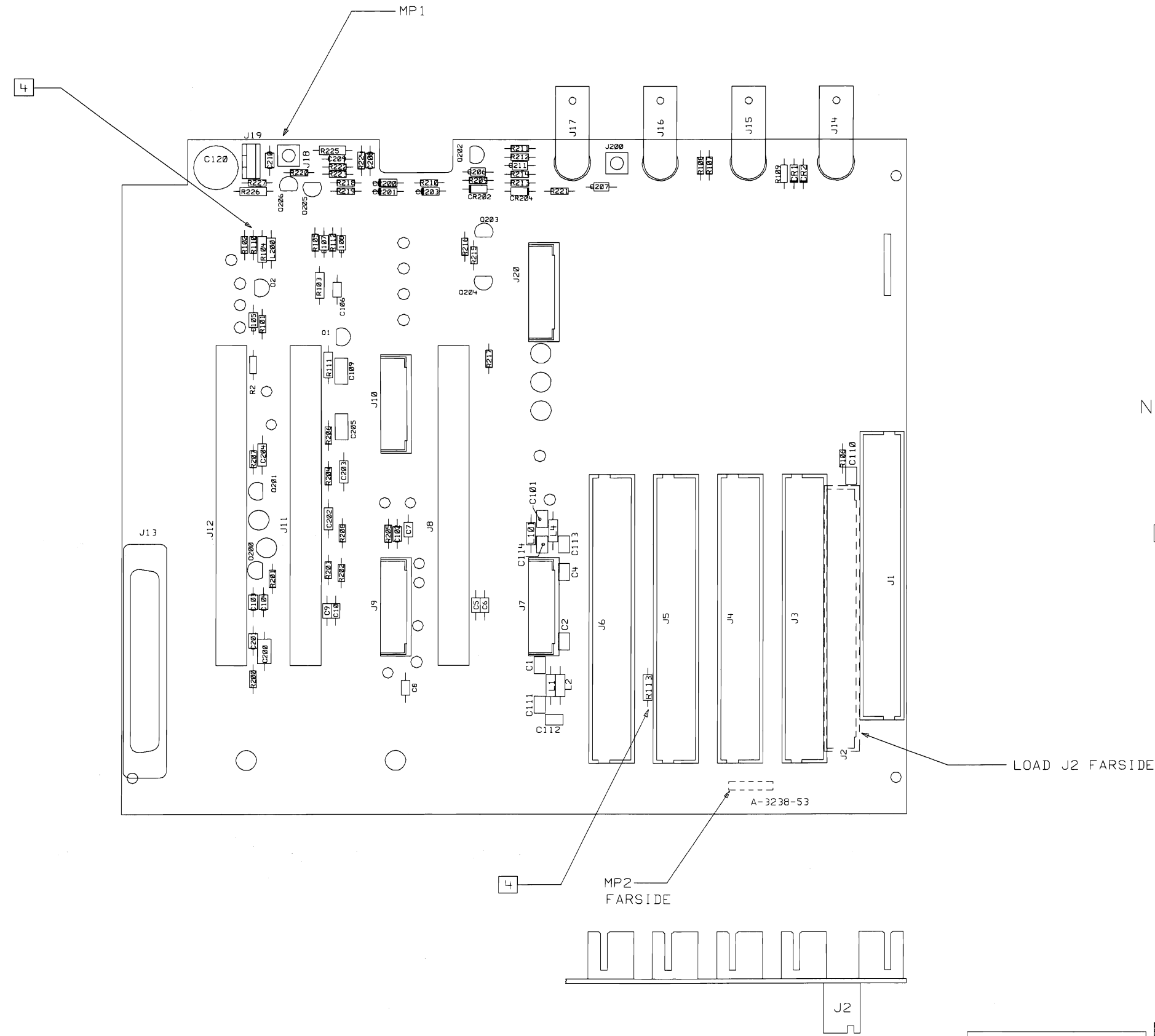
*\*Indicates factory-selected value*

**CLIP 08591-90103 3**

**HP Part Number 08591-60062  
Motherboard (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R215	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R216	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R217	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R218	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R219	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R220	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R221	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R222	0698-7230	1	RESISTOR 562 +-1% .05W TF TC=0+-100	28480	0698-7230
R223	0698-7220	1	RESISTOR 215 +-1% .05W TF TC=0+-100	28480	0698-7220
R224	0698-7220	1	RESISTOR 215 +-1% .05W TF TC=0+-100	28480	0698-7220
R225	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R226	0698-3446	1	RESISTOR 383 +-1% .125W TF TC=0+-100	28480	0698-3446
R227	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205

5300		D-08591-60062-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07434 DM		



NOTE: UNLESS OTHERWISE SPECIFIED

1. MAXIMUM COMPONENT HEIGHT.....460
2. MAXIMUM LEAD TRIM LENGTH.....080
3. ALL CONNECTORS MUST BE FLUSH TO BOARD SURFACE AFTER MACHINE SOLDER
4. R110 AND R113 ARE NOT LOADED FOR THIS ASSEMBLY
5. SEE 08591-60062 FOR MATERIAL LIST

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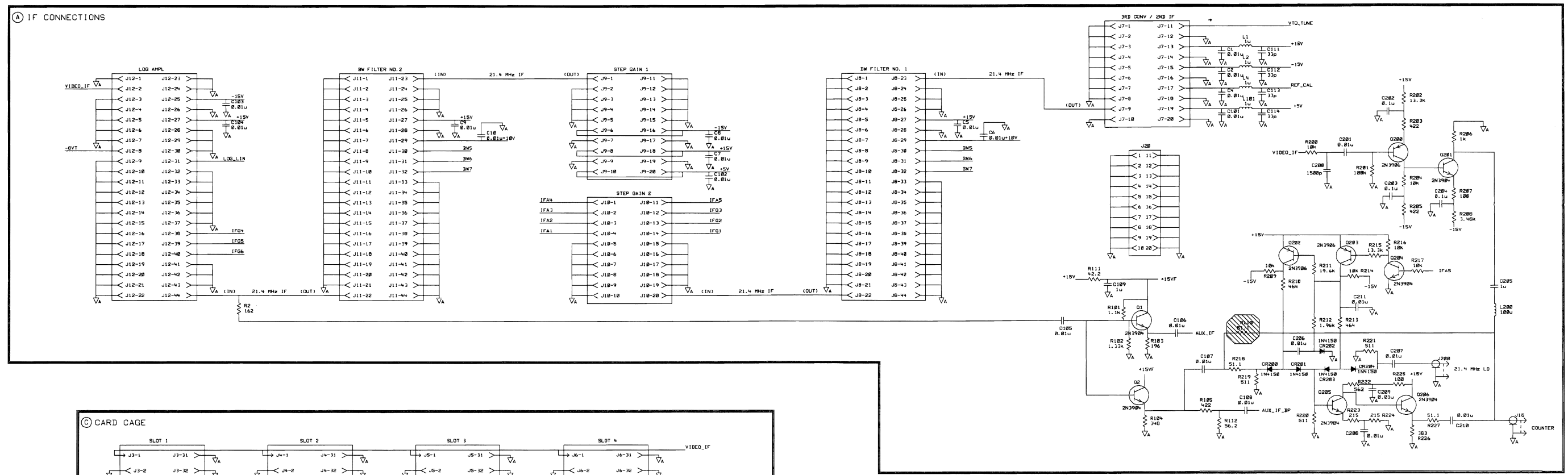
UNLESS OTHERWISE SPECIFIED,  
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TOLERANCES: XX.XXX ±.010  
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THIRD ANGLE PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

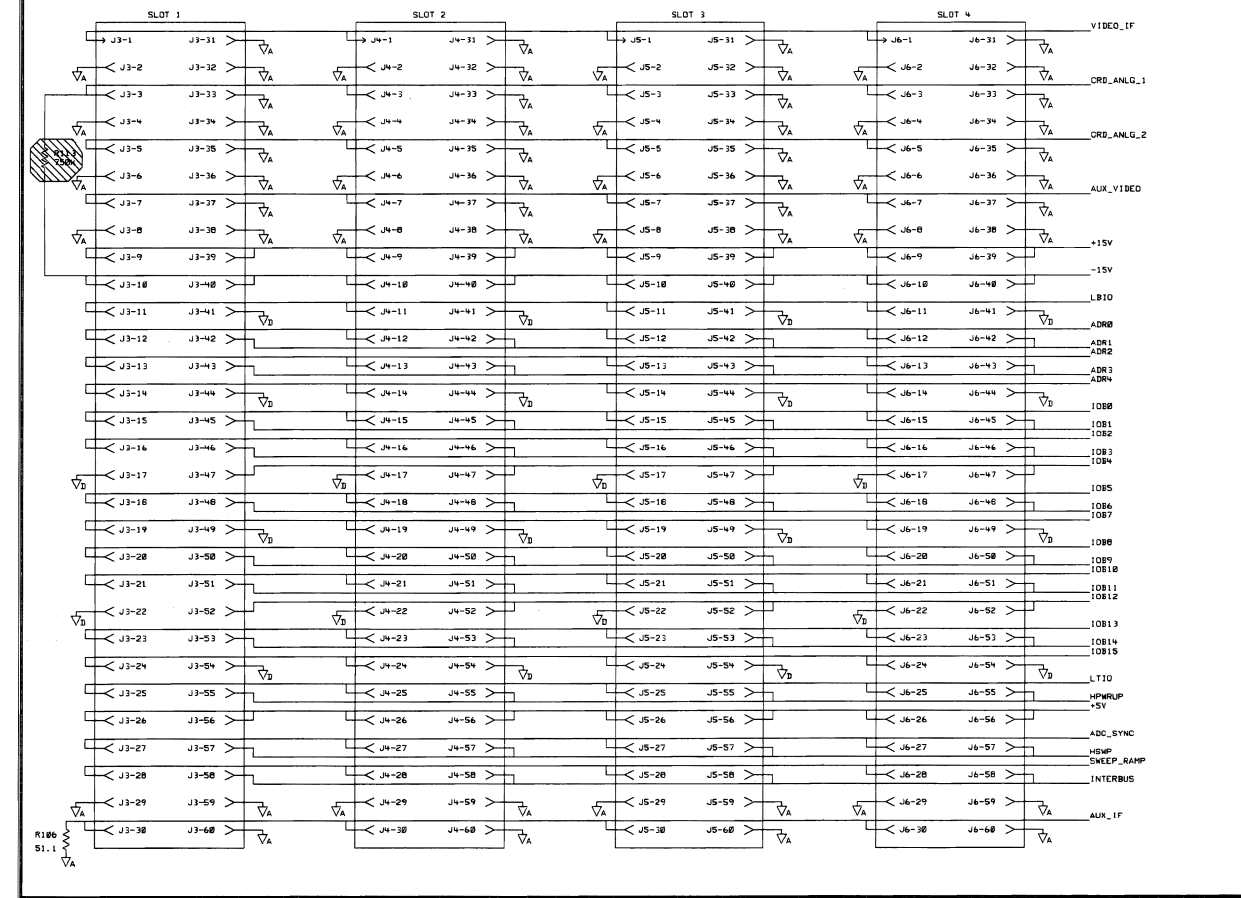
ASSEMBLY, PWB  
IF MOTHERBOARD  
DRIVER

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FILENAME	
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SHEET 1 OF 1	08591-60062 PART NUMBER
D-08591-60062-2	

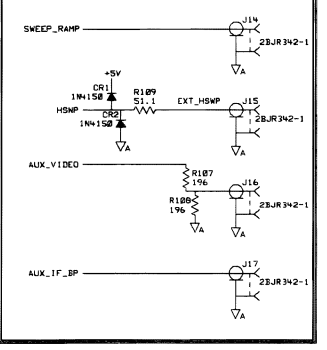
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(C) CARD CAGE



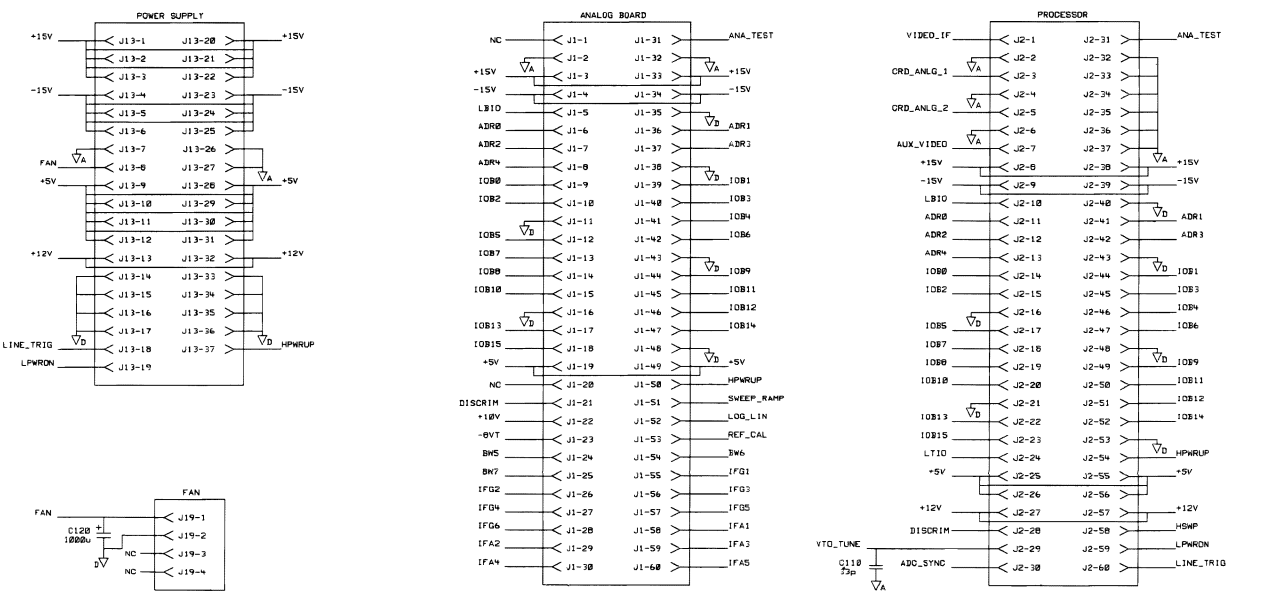
(B) BACKPANEL CONNECTORS



NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH).  
 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.



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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA IF MOTHERBOARD DRIVER  
 TITLE

RAW BD NUMBER = 08591-20062

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SCALE	NONE	
SHEET 1 OF 1	08591-60062	PART NUMBER
D-08591-60062-1		



# **Component-Level Information Packet for 08590-60365**

## **Processor/Video**



**HP Part No. 08590-90256  
Printed in USA May 1997**

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**HP Part Number 08590-60365  
Processor/Video**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C2	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C5	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C6	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C10	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C12	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C13	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C16	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C17	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C20	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C22	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C23	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C24	0160-6588	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C25	0160-5099	1	CAP-FXD 3300pF +-5% 100 V CER C0G	28480	0160-5099
C26	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C27	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C28	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C29	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C30	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C31	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C32	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C33	0160-4807	1	CAP-FXD 33pF +-5% 100 V CER C0G	28480	0160-4807
C34	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C35	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C36	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C37	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C38	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C39	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C40	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C41	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C43	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C44	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C46	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C47	0160-4682	1	CAP-FXD 1000pF +-2.5% 160 V POLYP-FL	28480	0160-4682
C48	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832

*\*Indicates factory-selected value*

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**HP Part Number 08590-60365**  
**Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C50	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C51	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C52	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C54	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C55	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C56	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C57	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C58	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C59	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C60	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C61	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C62	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C63	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C64	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C65	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C66	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C67	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C102	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C103	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C104	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C105	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C107	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C108	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C109	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C113	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C114	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C201	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C203	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C204	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C205	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C206	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C207	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C208	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C209	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C210	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832

**HP Part Number 08590-60365  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C301	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C302	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C303	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C304	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C305	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C306	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C307	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C308	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C309	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C310	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C311	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C312	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C313	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C314	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C315	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C316	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C317	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C318	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C380	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C401	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C402	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C403	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C501	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C502	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C503	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C504	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C505	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
CR4	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR5	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR6	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR7	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR8	1901-1131	1	DIODE-SCHOTTKY SM SIG	28480	1901-1131
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR103	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2

*\*Indicates factory-selected value*

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**HP Part Number 08590-60365**  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR104	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR105	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR106	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR107	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR108	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR111	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR112	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR201	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR202	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR203	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR204	1901-0535	1	DIODE-SCHOTTKY SM SIG	28480	1901-0535
CR301	1901-0539	1	DIODE-SCHOTTKY SM SIG	28480	1901-0539
CR401	1901-0743	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
CR402	1901-0743	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
CR403	1901-0743	1	DIODE-PWR RECT 1N4004 400V 1A DO-41	28480	1901-0743
CR501	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR502	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR503	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR504	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
FB201	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
FB301	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
FB401	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
FB402	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
J1	1252-2907	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2907
J2	1252-1284	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1284
J4	1252-1470	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1470
J5	1250-1846	1	CONNECTOR-RF BNC FEMALE PC-W-STDFS	28480	1250-1846
J6	1252-1327	1	CONN-RECT D-SUBMIN 9-CKT 9-CONT	28480	1252-1327
J7	1250-1846	1	CONNECTOR-RF BNC FEMALE PC-W-STDFS	28480	1250-1846
J8	1252-2162	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2162
J9	1252-1882	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1882
J10	1252-1065	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1065
J500	1250-0257	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0257
J501	1250-0257	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0257
L1	9100-1631	1	INDUCTOR RF-CH-MLD 56uH +-5%	28480	9100-1631

**HP Part Number 08590-60365  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L201	9100-1631	1	INDUCTOR RF-CH-MLD 56uH +-5%	28480	9100-1631
L301	9140-0736	1	INDUCTOR 200uH .3W-INX.4LG-IN	28480	9140-0736
MP11	0515-0169	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	
MP12	0515-0169	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 10MM-LG	05610	
MP13	0535-0025	1	NUT-HEX DBL-CHAM M3 X 0.5 2.4MM-THK	06691	
MP14	0535-0025	1	NUT-HEX DBL-CHAM M3 X 0.5 2.4MM-THK	06691	
MP15	5021-9910	1	GSKT BC FS 31X15	28480	5021-9910
MP19	0361-1310	1	RIVET-BLIND PUSH-THRU MTG FLH 0DIA	01924	D30-0125-06
MP20	0361-1310	1	RIVET-BLIND PUSH-THRU MTG FLH 0DIA	01924	D30-0125-06
MP22	08590-40012	1	INS-PROCESSOR	28480	08590-40012
MP23	0380-4357	1	SPACER-SNP-IN .5-IN-LG .17-IN-OD NYL NAT	02201	MSPS-8-01
MP24	0380-4357	1	SPACER-SNP-IN .5-IN-LG .17-IN-OD NYL NAT	02201	MSPS-8-01
MP25	0380-4357	1	SPACER-SNP-IN .5-IN-LG .17-IN-OD NYL NAT	02201	MSPS-8-01
MP26	0380-4357	1	SPACER-SNP-IN .5-IN-LG .17-IN-OD NYL NAT	02201	MSPS-8-01
P12	1252-6260	1	CONN-RECT SCSI I 50-CKT 50-CONT	28480	1252-6260
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q4	1853-0007	1	TRANSISTOR PNP 2N3251 SI TO-18 PD=360MW	28480	1853-0007
Q5	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q6	1855-1002	1	TRANSISTOR J-FET 2N4416A N-CHAN D-MODE	28480	1855-1002
Q7	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q8	1855-0675	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0675
Q201	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q301	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q302	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q303	1854-0477	1	TRANSISTOR NPN 2N2222A SI TO-18 PD=500MW	02237	2N2222A
R5	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R6	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R8	0698-7231	1	RESISTOR 619 +-1% .05W TF TC=0+-100	28480	0698-7231
R9	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R10	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R11	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R19	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R20	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R21	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R23	0698-7196	1	RESISTOR 21.5 +-1% .05W TF TC=0+-100	28480	0698-7196

*\*Indicates factory-selected value*

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**HP Part Number 08590-60365  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R27	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R28	0698-7214	1	RESISTOR 121 +-1% .05W TF TC=0+-100	28480	0698-7214
R29	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R30	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R31	0698-7225	1	RESISTOR 348 +-1% .05W TF TC=0+-100	28480	0698-7225
R32	0698-7258	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	28480	0698-7258
R33	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R34	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R35	0698-7220	1	RESISTOR 215 +-1% .05W TF TC=0+-100	28480	0698-7220
R36	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R37	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R38	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R39	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R40	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R41	0698-6317	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	28480	0698-6317
R42	0698-6317	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	28480	0698-6317
R43	0698-6362	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	28480	0698-6362
R44	0698-6317	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	28480	0698-6317
R45	0698-7202	1	RESISTOR 38.3 +-1% .05W TF TC=0+-100	28480	0698-7202
R46	0698-7202	1	RESISTOR 38.3 +-1% .05W TF TC=0+-100	28480	0698-7202
R47	0698-7218	1	RESISTOR 178 +-1% .05W TF TC=0+-100	28480	0698-7218
R48	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R49	0698-7250	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	28480	0698-7250
R51	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R52	0698-6362	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	28480	0698-6362
R53	0698-6347	1	RESISTOR 1.5K +-0.1% .125W TF TC=0+-25	28480	0698-6347
R54	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R55	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R56	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R57	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R58	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R60	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R61	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R62	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R63	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284



**HP Part Number 08590-60365  
Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R64	0698-6317	1	RESISTOR 500 +-0.1% .125W TF TC=0+-25	28480	0698-6317
R65	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R66	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R67	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R68	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R69	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R70	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R71	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R72	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R78	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R102	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R105	0698-7245	1	RESISTOR 2.37K +-1% .05W TF TC=0+-100	28480	0698-7245
R106	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R107	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R108	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R109	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R110	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R111	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R201	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R202	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R203	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R204	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R205	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R206	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R207	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R208	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R209	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R210	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R211	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R212	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R213	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R214	0698-7263	1	RESISTOR 13.3K +-1% .05W TF TC=0+-100	28480	0698-7263
R215	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R301	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243

*\*Indicates factory-selected value*

**CLIP 08590-90256 7**

**HP Part Number 08590-60365  
Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R302	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R303	0698-7221	1	RESISTOR 237 +-1% .05W TF TC=0+-100	28480	0698-7221
R304	0698-7242	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	28480	0698-7242
R305	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R306	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R307	0698-7208	1	RESISTOR 68.1 +-1% .05W TF TC=0+-100	28480	0698-7208
R308	0698-7234	1	RESISTOR 825 +-1% .05W TF TC=0+-100	28480	0698-7234
R309	0698-7201	1	RESISTOR 34.8 +-1% .05W TF TC=0+-100	28480	0698-7201
R310	0757-0402	1	RESISTOR 110 +-1% .125W TF TC=0+-100	28480	0757-0402
R311	0698-7219	1	RESISTOR 196 +-1% .05W TF TC=0+-100	28480	0698-7219
R312	0698-7224	1	RESISTOR 316 +-1% .05W TF TC=0+-100	28480	0698-7224
R313	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R314	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R315	0698-7245	1	RESISTOR 2.37K +-1% .05W TF TC=0+-100	28480	0698-7245
R316	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R317	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R318	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R380	0698-3438	1	RESISTOR 147 +-1% .125W TF TC=0+-100	28480	0698-3438
R501	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R502	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R503	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R504	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R505	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
TP1	1251-5596	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5596
U2	1820-6218	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-6218
U3	1820-6218	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-6218
U6	08590-80244	1	EPROM-PRGM U6	28480	08590-80244
U7	08590-80245	1	EPROM-PRGM U7	28480	08590-80245
U9	1820-5655	1	IC GATE CMOS/AC OR QUAD 2-INP	02237	74AC32PC.
U10	1820-3097	1	IC GATE CMOS/HC AND QUAD 2-INP	28480	1820-3097
U11	1810-0286	1	NET-RES 15 10.0K OHM 16-DIP	28480	1810-0286
U12	1820-6245	1	IC-16-BIT MPU W/COUNTER, PLCC 16MHZ	28480	1820-6245
U13	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U16	1820-3183	1	IC GATE CMOS/HC NAND QUAD 2-INP	02237	MM74HC03N
U18	1820-2998	1	IC LCH CMOS/HC TRANSPARENT OCTL	28480	1820-2998

**HP Part Number 08590-60365  
Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U19	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U20	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U23	08590-80246	1	EPROM-PRGM U23	28480	08590-80246
U24	08590-80247	1	EPROM-PRGM U24	28480	08590-80247
U25	1251-4787	1	SHUNT-DIP 8 POSITION; DUAL INLINE PKG	01380	435704-8
U26	1820-2689	1	IC GATE TTL/F NAND DUAL 4-INP	02237	74F20PC.
U32	1820-2922	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-2922
U33	1858-0077	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	FPQ2222P
U34	1810-0037	1	NET-RES 8 1.0K OHM 16-DIP	28480	1810-0037
U35	1826-0759	1	IC COMPARATOR GP QUAD 14 PIN DIP-C	28480	1826-0759
U36	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U37	1820-3081	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG	28480	1820-3081
U38	1810-0206	1	NET-RES 7 10.0K OHM 8-SIP	28480	1810-0206
U39	1820-3664	1	IC GATE CMOS/HCT NAND QUAD 2-INP	28480	1820-3664
U40	1820-5108	1	IC-PROGRAMMABLE INTERVAL TIMER 8MHZ CMOS	28480	1820-5108
U41	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U42	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U44	1858-0077	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	FPQ2222P
U45	1826-2137	1	IC OP AMP PRCN 8 PIN DIP-P	28480	1826-2137
U46	1826-1178	1	IC OP AMP HS DIP-C	28480	1826-1178
U47	1826-1522	1	A/D 12-DGT 28-CERDIP HYB	28480	1826-1522
U48	1810-0286	1	NET-RES 15 10.0K OHM 16-DIP	28480	1810-0286
U49	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U52	1820-3079	1	IC DCDR-DEMURX CMOS/HC BIN 3-TO-8-LINE	28480	1820-3079
U53	1810-0286	1	NET-RES 15 10.0K OHM 16-DIP	28480	1810-0286
U54	1820-3297	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U56	1820-4675	1	IC ENCDR CMOS/HC PRIORITY 8-TO-3-LINE	28480	1820-4675
U57	LTB1820-3832KD	1	IC68230G8 P16PIT	28480	LTB1820-3832KD
U58	1810-0205	1	NET-RES 7 4.7K OHM 8-SIP	28480	1810-0205
U60	1810-0203	1	NET-RES 7 470.0 OHM 8-SIP	28480	1810-0203
U61	1826-1939	1	IC OP AMP WB 8 PIN TO-99	28480	1826-1939
U62	1858-0032	1	TRANSISTOR ARRAY 14-PIN PLSTC DIP	28480	1858-0032
U63	1858-0077	1	TRANSISTOR ARRAY 14-PIN PLSTC TO-116	02237	FPQ2222P
U64	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U65	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789

*\*Indicates factory-selected value*

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**HP Part Number 08590-60365  
Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U66	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U68	1820-3297	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U71	1820-3081	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG	28480	1820-3081
U72	1820-3185	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185
U101	08590-80237	1	PAL-PRGM U101	28480	08590-80237
U102	1820-3174	1	IC SCHMITT-TRIG CMOS/HC NAND QUAD 2-INP	28480	1820-3174
U106	1820-5384	1	IC-INTERFACE CMOS -888-BIT	28480	1820-5384
U107	1810-0280	1	NET-RES 9 10.0K OHM 10-SIP	28480	1810-0280
U108	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U109	1810-0273	1	NET-RES 9 470.0 OHM 10-SIP	28480	1810-0273
U110	1810-0280	1	NET-RES 9 10.0K OHM 10-SIP	28480	1810-0280
U111	1820-3297	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U113	1820-3183	1	IC GATE CMOS/HC NAND QUAD 2-INP	02237	MM74HC03N
U114	08590-80238	1	PAL-PRGM U114	28480	08590-80238
U115	08590-80239	1	PAL-PRGM U115	28480	08590-80239
U116	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U117	1813-0952	1	CLK-OSC-XTAL STD 14.7423-MHZ 0.0025%	28480	1813-0952
U118	1820-2691	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG	02237	74F74PC.
U201	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
U202	1826-2137	1	IC OP AMP PRCN 8 PIN DIP-P	28480	1826-2137
U203	1826-0412	1	IC COMPARATOR PRCN DUAL 8 PIN DIP-P	28480	1826-0412
U301	LTB1820-6351KD	1	IC63484-8S ACRTC	28480	LTB1820-6351KD
U302	1820-2656	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-2656
U303	1820-2102	1	IC LCH TTL/LS TRANSPARENT OCTL	28480	1820-2102
U304	1820-2102	1	IC LCH TTL/LS TRANSPARENT OCTL	28480	1820-2102
U305	1818-4017	1	IC 256K-BIT SRAM 100-NS CMOS	28480	1818-4017
U306	1818-4017	1	IC 256K-BIT SRAM 100-NS CMOS	28480	1818-4017
U307	1813-0870	1	CLK-OSC-XTAL STD 21.0-MHZ 0.05%	28480	1813-0870
U308	08590-80096	1	PAL-PRGM U308	28480	08590-80096
U309	1820-1922	1	IC SHF-RGTR TTL/LS SYNC/ASYN	28480	1820-1922
U310	1820-1922	1	IC SHF-RGTR TTL/LS SYNC/ASYN	28480	1820-1922
U311	1820-0535	1	IC-INTERFACE DRVR BIPOLAR AND DUAL	28480	1820-0535
U312	1820-0535	1	IC-INTERFACE DRVR BIPOLAR AND DUAL	28480	1820-0535
U401	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U402	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301

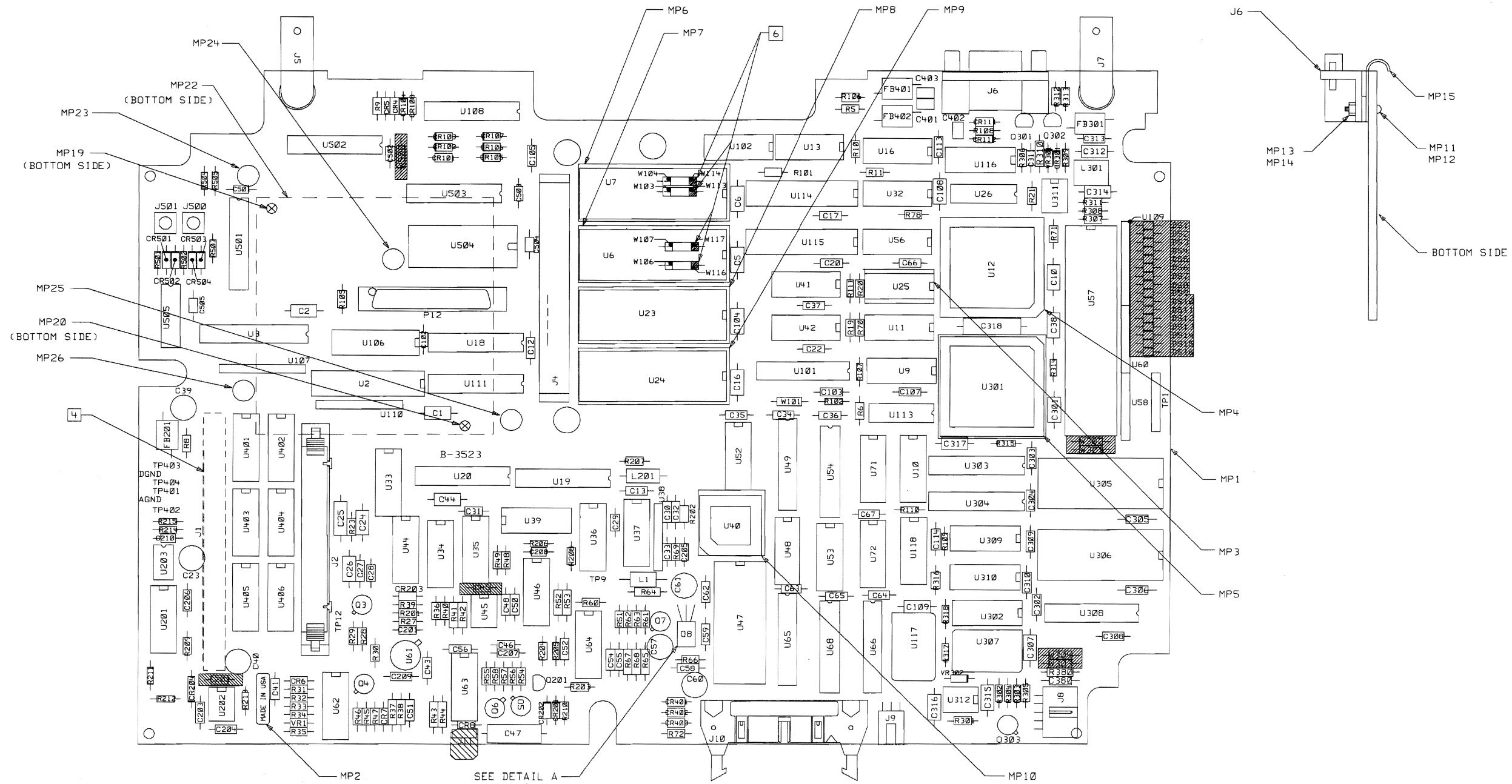
**HP Part Number 08590-60365  
Processor/Video (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U403	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U404	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U405	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U406	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U501	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U502	08590-80180	1	PAL PRGM-U502	28480	08590-80180
U503	08590-80181	1	PAL PRGM-U503	28480	08590-80181
U504	1820-4669	1	IC-PROGRAMMABLE INTERVAL TIMER - 8MHZ	28480	1820-4669
U505	1820-3185	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185
VR1	1902-0952	1	DIODE-ZNR 5.6V 5% DO-35 PD=.4W TC=+.046%	02037	SZ30035-10RL
VR301	1902-0949	1	DIODE-ZNR 4.3V 5% DO-35 PD=.4W TC=+.017%	02037	SZ30035-7
VR302	1902-0949	1	DIODE-ZNR 4.3V 5% DO-35 PD=.4W TC=+.017%	02037	SZ30035-7
W101	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W103	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W104	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W106	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005
W107	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005

*\*Indicates factory-selected value*

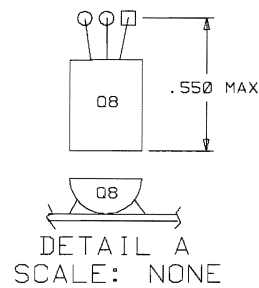
**CLIP 08590-90256 11**

S 300		D-08590-60365-2	
REV	SYN	REVISIONS	APPROVED
E		CHANGED PER PCO 53-10482 LN	DATE



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .400
3. MAXIMUM LEAD TRIM LENGTH .118
- 4 J1 TO BE LOADED ON BOTTOM SIDE OF BOARD.
5. USE RAW BOARD PART NUMBER 08590-20365
- 6 DO NOT LOAD W113, W114, W116 & W117.
7. DO NOT LOAD COMPONENTS SHOWN CROSS-HATCHED. (C45, C202, W301-304, W500, DS1-DS16, J11).



SEE MATERIAL LIST 08590-60365

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DO NOT DISCLOSE TO OR DUPLICATE FOR  
OTHERS EXCEPT AS AUTHORIZED BY HP.

UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
PROCESSOR

TITLE

FILENAME	08590-60365
SCALE	NONE
SHEET 1 OF 1	PART NUMBER
D-08590-60365-2	



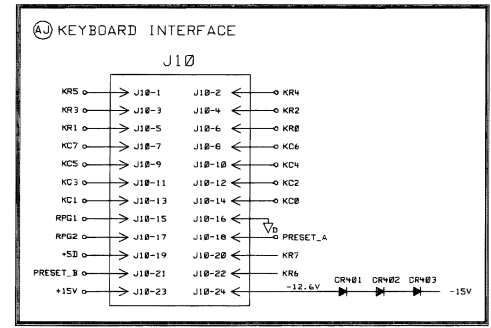
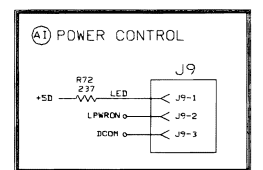
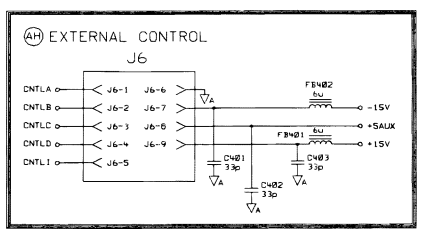
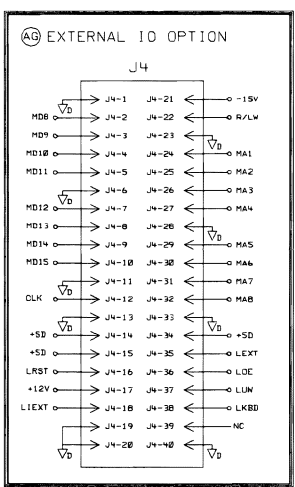
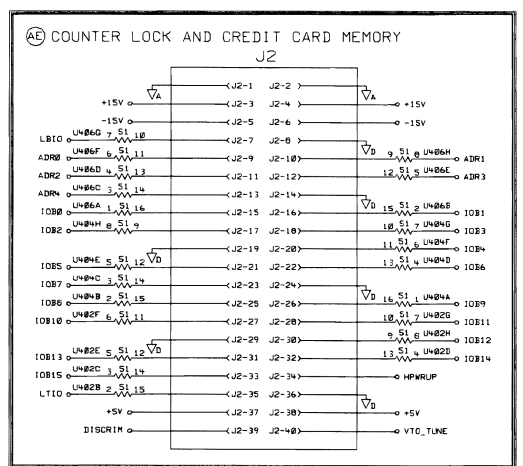
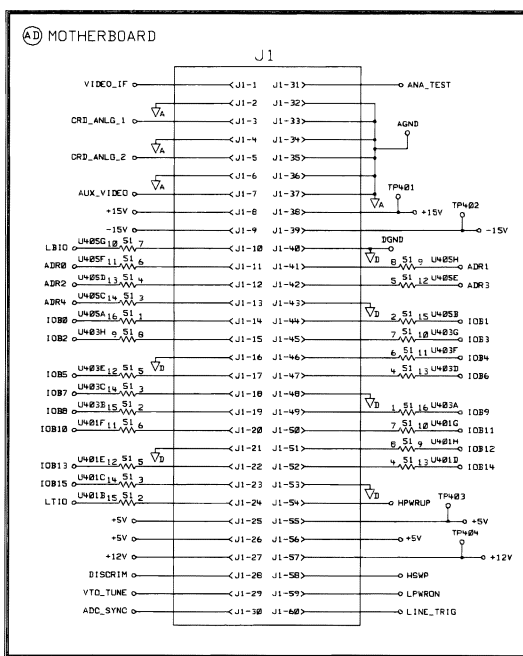








S300 HB3523		D-08590-60365-1	
SYM	REVISIONS	APPROVED	DATE
G	REDRAWN PER PCO 53-10310		02-18-97
H	CHANGED PER PCO 53-10482 LN		05-02-97



MNEMONIC	SHEET			
	1	2	3	4
ADC_SYNC			S	AD
ADR0-4	H			AD AE
ANA_TEST			T	AD
AUX_VIDEO			P	AD
CLA	A	E	F	AG AH
CNTLA		J		AG
CNTLB		J		AG
CNTLC		J		AG
CNTLD		J		AG
CRD_ANLG_1			N	AD
CRD_ANLG_2			T	AD
DISCRIM			N	AD AE
+SD				AD
HPWRUP	C		M	AD AE
HPWR				AD
IOB0-15	J	H		AD AE
K00-7		G		AJ
K08-5		G		AJ
LBI0		I		AD AE
LEXT	B		I	AD
LEXT1	A	E		AG
LINE_TRIG		J		AD
LKBD	B		I	AG
LSE	B	C	I	AG
LPWRON	A	E		AD
LST	A	C	K	V
LSTRB	B		I	AD AE
LTI0				AD
LW	B	C	I	AD
MAI-6	A	B	C	E
NOB-15	A	C	D	E
PRESET_A	A	E		AG
PRESET_B	A	E		AJ
R/LW	A	B	E	AG
RF01	A	B	E	AJ
RF02				AJ
VIDEO_IF			N	AD
VTD_TUNE				AD AE

UWB1A  
NC 1 51 18 NC

UWB2A  
NC 1 51 18 NC

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.  
RAW 3D = 08590-20365

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SCHEMATIC, PWA  
PROCESSOR

s44db365	FILENAME	HEWLETT PACKARD
SCALE	NONE	
SHEET 4 OF 4	08590-60365	PART NUMBER
D-08590-60365-1		

TITLE

# **Component-Level Information Packet for 08590-60399**

## **2X Memory**



**HP Part No. 08590-90283  
Printed in USA May 1997**

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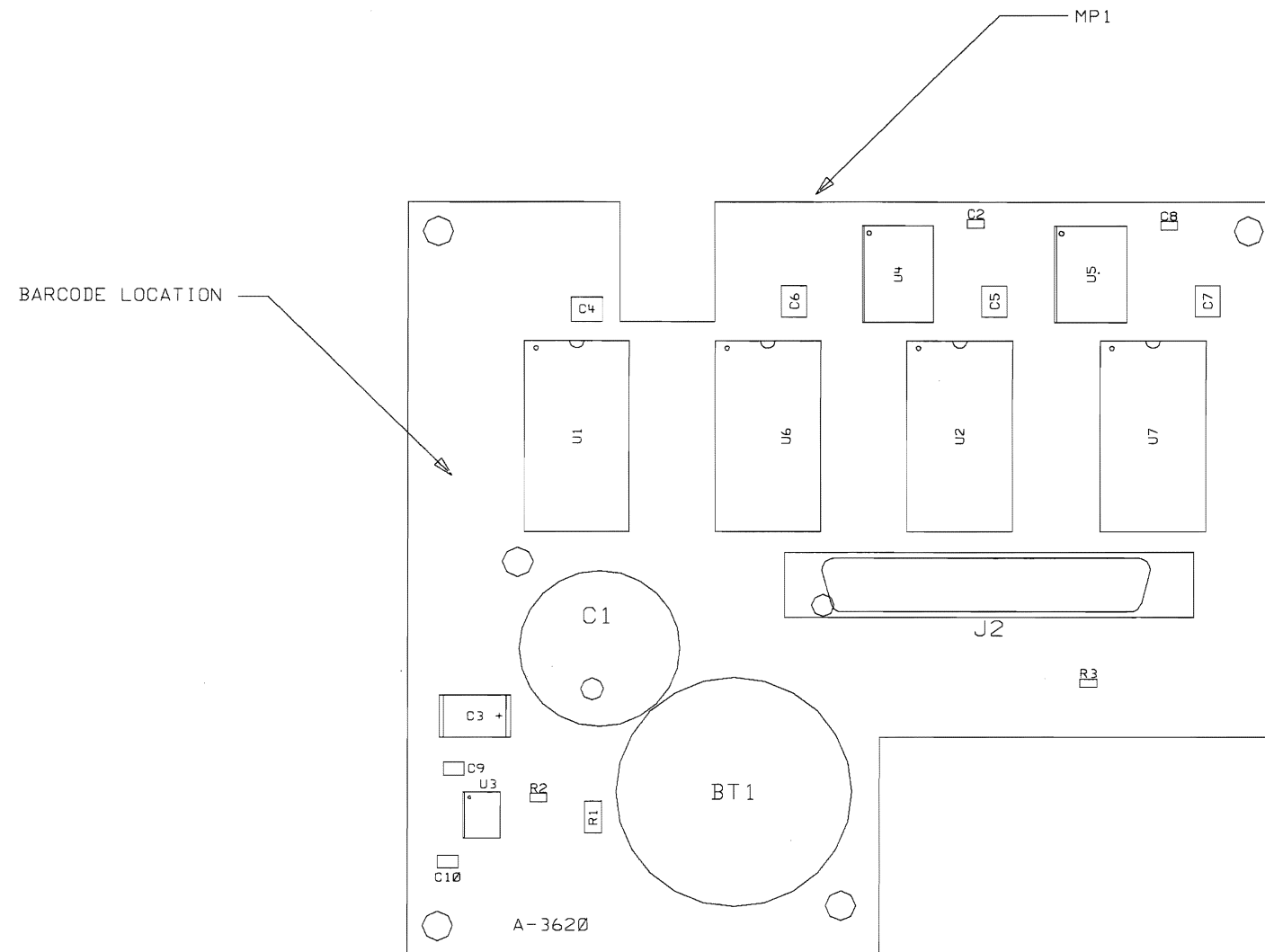
**HP Part Number 08590-60399**  
**2X Memory**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
BT1	1420-0394	1	BATTERY 3V 1A-HR LI MANGANESE DIOXIDE	28480	1420-0394
C1	0180-3740	1	CAP-FXD 0.22F +80% -20% 5 V CARB	28480	0180-3740
C2	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C3	0180-3753	1	CAP-FXD 6.8uF +-20% 35 V TA	28480	0180-3753
C4	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C5	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C6	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C7	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C8	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C9	0160-7798	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-7798
C10	0160-5967	1	CAP-FXD 100pF +-5% 50 V CER C0G	28480	0160-5967
J2	1252-6251	1	CONN-RECT SCSI I 50-CKT 50-CONT	28480	1252-6251
MP3	08590-40011	1	INSUL-MEMORY	28480	08590-40011
MP4	0361-1310	1	RIVET-BLIND PUSH-THRU MTG FLH 0DIA	01924	D30-0125-06
MP5	0361-1310	1	RIVET-BLIND PUSH-THRU MTG FLH 0DIA	01924	D30-0125-06
R1	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R2	0699-3970	1	RESISTOR 10K +-1% .063W TKF TC=0+-200	28480	0699-3970
R3	0699-3970	1	RESISTOR 10K +-1% .063W TKF TC=0+-200	28480	0699-3970
U1	1818-4785	1	IC 1M-BIT SRAM 85-NS CMOS	28480	1818-4785
U2	1818-4785	1	IC 1M-BIT SRAM 85-NS CMOS	28480	1818-4785
U3	1826-1897	1	IC PWR MGT-VS-SUPVR/CONT	28480	1826-1897
U4	1820-8894	1	IC-NONVOLATILE CONTROLLER CHIP	28480	1820-8894
U5	1820-8894	1	IC-NONVOLATILE CONTROLLER CHIP	28480	1820-8894
U6	1818-4785	1	IC 1M-BIT SRAM 85-NS CMOS	28480	1818-4785
U7	1818-4785	1	IC 1M-BIT SRAM 85-NS CMOS	28480	1818-4785

*\*Indicates factory-selected value*

**CLIP 08590-90283 1**

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-09485		



TOP SIDE

NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 08590-20399

SEE 08590-60399 MATERIAL LIST

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THIRD ANGLE  
 PROJECTION

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ASSEMBLY, PWB  
 2X MEMORY

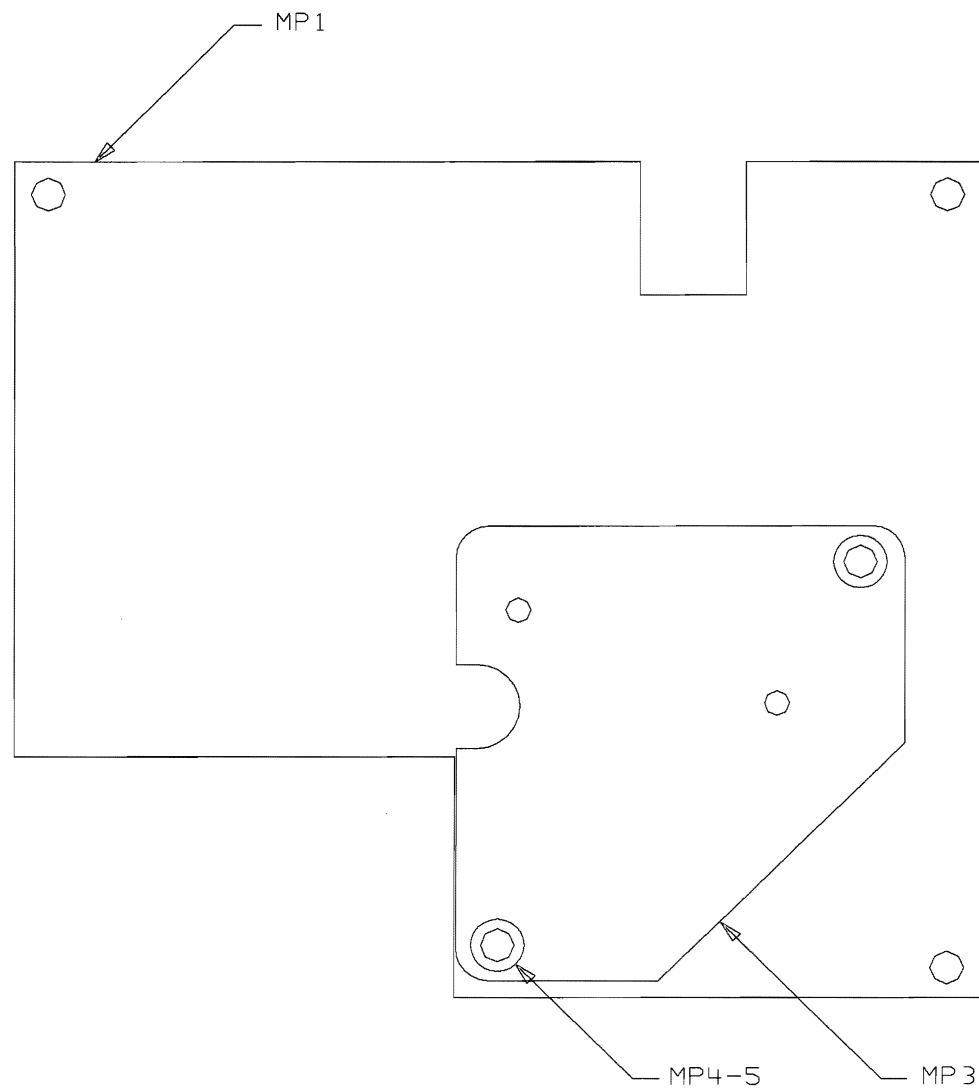
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SCALE NONE	
SHEET 1 OF 1	08590-60399 PART NUMBER
C-08590-60399-2	

5300

C-08590-60399-2

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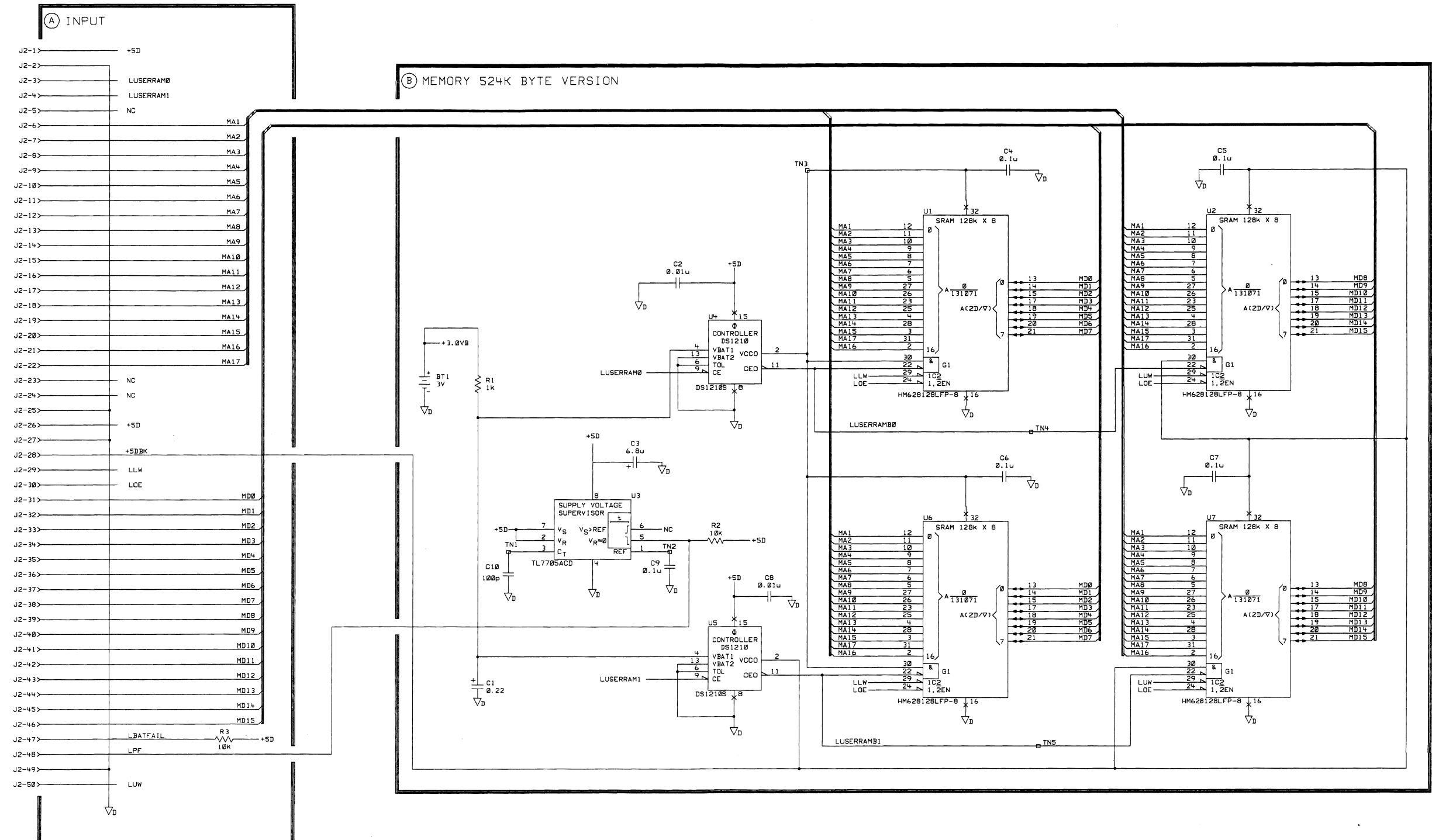
ASSEMBLY, PWB  
 2X MEMORY

TITLE

a6abb399 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	08590-60399 PART NUMBER
C-08590-60399-2	

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SCHEMATIC, PWA  
 2X MEMORY  
 TITLE

s1abb399	FILENAME	HP	HEWLETT PACKARD
NONE	SCALE		
1	SHEET	1	OF 1
08590-60399	PART NUMBER		
C-08590-60399-1			



# **Component-Level Information Packet for 08590-60396**

## **Memory Card Reader**



**HP Part No. 08590-90285  
Printed in USA May 1997**

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**HP Part Number 08590-60396  
Memory Card Reader**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C2	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C3	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C4	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C5	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C6	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C7	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C8	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C9	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C10	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C11	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C12	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C13	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
J1	1252-1290	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1290
J2	1252-2906	1	CONN-POST TYPE 0-CONT	28480	1252-2906
L1	9100-1631	1	INDUCTOR RF-CH-MLD 56uH +-5%	28480	9100-1631
Q1	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R2	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R3	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R4	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
U1	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U2	1820-3330	1	IC TRANSCEIVER CMOS/HC BUS OCTL	28480	1820-3330
U3	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U4	08590-80106	1	PAL-PRGM U4	28480	08590-80106
U5	1820-3297	1	IC DRVR CMOS/HC BUS OCTL	28480	1820-3297
U6	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U7	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U8	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U9	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U10	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U11	1820-3785	1	IC CNTR CMOS/HC BIN SYNCHRO	28480	1820-3785
U12	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U13	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U14	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301

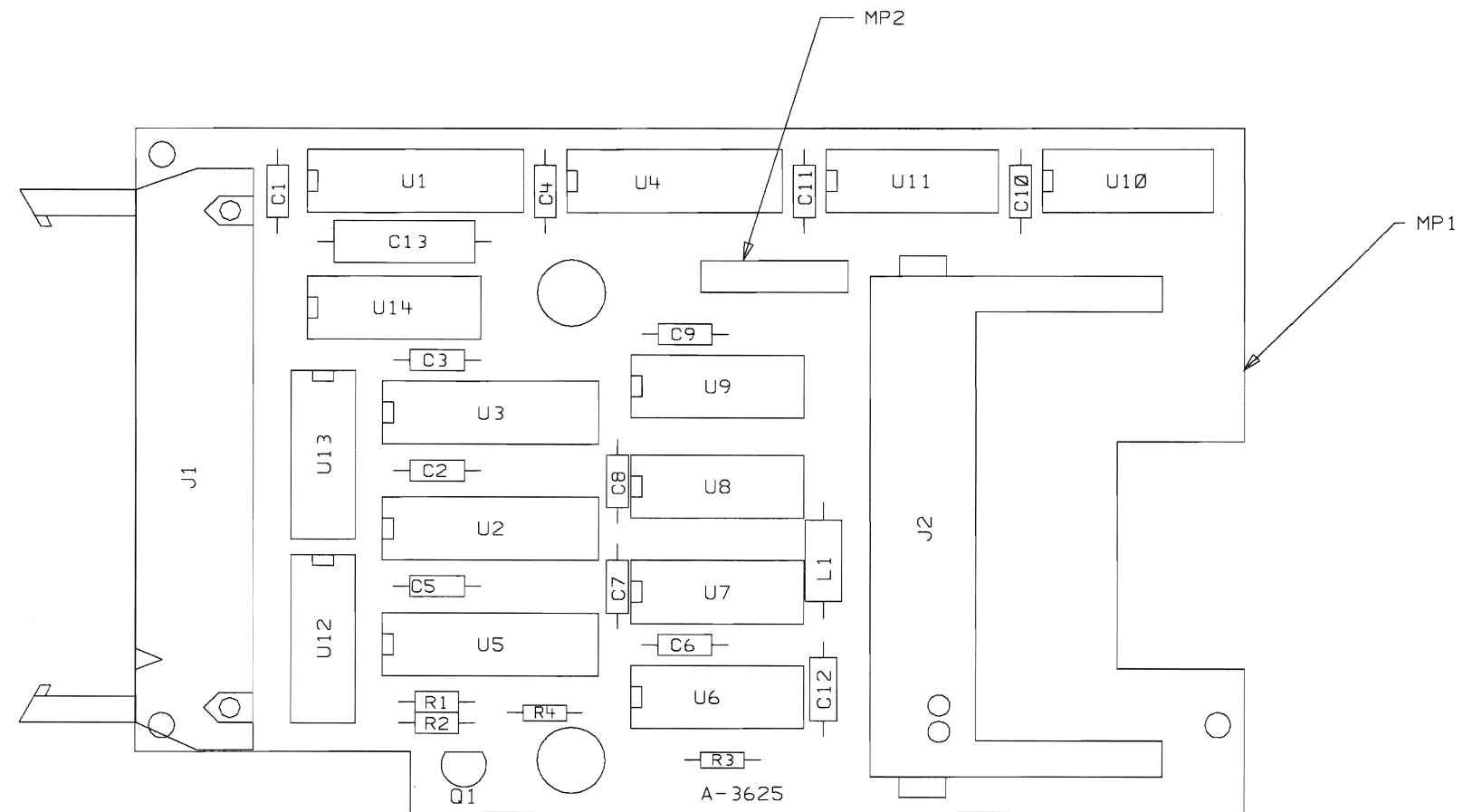
*\*Indicates factory-selected value*

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Artek Media**

S300		D-08590-60396-2	
REVISIONS		APPROVED	DATE
SYM	AS ISSUED PER PCO 53-09162		
A			



NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 08590-20396.
2. SEE MATERIAL 08590-60396.
3. MAXIMUM COMPONENT HEIGHT     .500    .
4. MAXIMUM LEAD TRIM LENGTH     .118    .
5. USE APPROVED ADHESIVE WHERE REQUIRED.

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ASSEMBLY, PWB  
 CREDIT CARD  
 MEMORY OPTION

alabb396	HEWLETT PACKARD
FILENAME	
SCALE NONE	
SHEET 1 OF 1	08590-60396
PART NUMBER	
D-08590-60396-2	



# **Component-Level Information Packet for 08591-60048**

## **10 MHz TCXO**



**HP Part No. 08591-90086  
Printed in USA August 1995**

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**HP Part Number 08591-60048**  
**10 MHz TCXO**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C2	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C3	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C4	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C5	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C6	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C7	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C8	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C9	0160-4518	1	CAP-FXD 3.9pF +-12.82% 200 V CER C0G	28480	0160-4518
C10	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C11	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C12	0160-4521	1	CAP-FXD 12pF +-5% 200 V CER C0G	28480	0160-4521
C13	0121-0443	1	CAP-VAR 9pF 3pF 160 V CER	28480	0121-0443
C14	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C15	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
CR1	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR2	1901-0535	1	DIODE-SCHOTTKY SM SIG	28480	1901-0535
J1	1252-0637	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0637
J2	1250-0543	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0543
L1	9140-0266	1	INDUCTOR RF-CH-MLD 1.8uH +-5%	28480	9140-0266
MP3	1200-0173	1	INSULATOR-XSTR DAP-GL	02608	7717-86 DAP
MP5	7100-1324	1	CAN-SQ	01932	HU-4532-2.625-ST
Q1	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q2	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q3	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
R1	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R2	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R3	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R4	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R5	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R6	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R7	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R8	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R9	0698-7250	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	28480	0698-7250
R10	0698-7226	1	RESISTOR 383 +-1% .05W TF TC=0+-100	28480	0698-7226

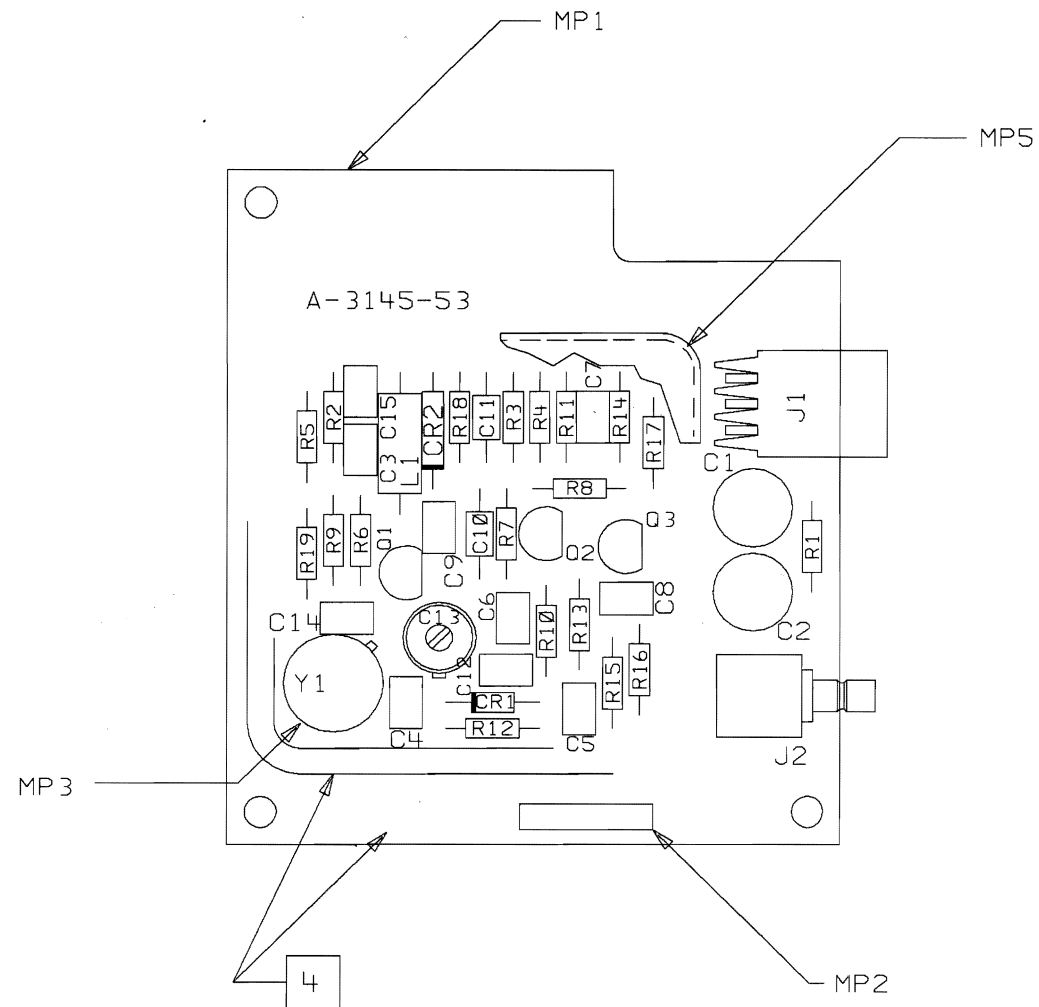
\*Indicates factory-selected value

CLIP 08591-90086 1

**HP Part Number 08591-60048  
10 MHz TCXO (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R11	0698-7227	1	RESISTOR 422 +-1% .05W TF TC=0+-100	28480	0698-7227
R12	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R13	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R14	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R15	0698-7233	1	RESISTOR 750 +-1% .05W TF TC=0+-100	28480	0698-7233
R16	0698-7197	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	28480	0698-7197
R17	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R18	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R19	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
Y1	0410-0405	1	PRECISION BULK MODE-AT CRYSTAL QUARTZ	28480	0410-0405

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED DM		



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1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER MACHINE SOLDER.
3. MAXIMUM LEAD TRIM LENGTH .118
- 4 ALL MOUNTING HOLES AND INDICATED TRACE AREAS ARE TO BE FREE OF EXCESS SOLDER.

SEE 08591-60048 MATERIAL LIST

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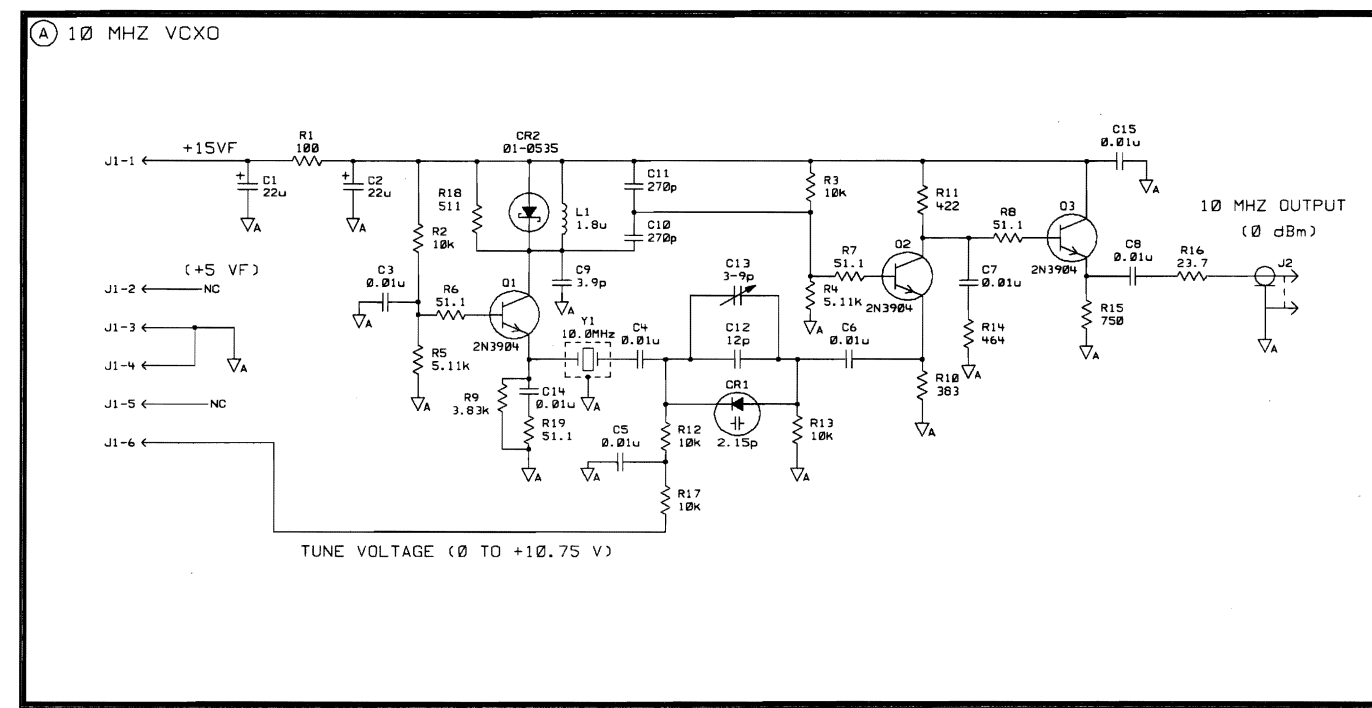
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ASSEMBLY, PWB  
 10 MHz VCXO  
 TITLE

alaca048 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08591-60048 PART NUMBER
C-08591-60048-2	

5300	3145	C-08591-60048-1	
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SCHEMATIC, PWA  
 10 MHz VCXO

slaca048 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08591-60048 PART NUMBER
C-08591-60048-1	

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# **Component-Level Information Packet for 08591-60098**

## **Counterlock**



**HP Part No. 08591-90175  
Printed in USA June 1997**

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**HP Part Number 08591-60098**  
**Counterlock**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C2	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C3	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C4	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C5	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C6	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C7	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C8	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C9	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C11	0160-4517	1	CAP-FXD 1.2pF +-20.8% 200 V CER C0G	28480	0160-4517
C12	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C13	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C14	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C15	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C16	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C17	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C18	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C19	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C20	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C21	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C22	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C23	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C24	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C25	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C26	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C27	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C28	0160-4493	1	CAP-FXD 27pF +-5% 200 V CER C0G	28480	0160-4493
C29	0160-4794	1	CAP-FXD 5.6pF +-8.92% 100 V CER C0G	28480	0160-4794
C30	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C31	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C32	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C33	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C35	0160-4803	1	CAP-FXD 68pF +-5% 100 V CER C0G	28480	0160-4803
C36	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C37	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788

\*Indicates factory-selected value

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**HP Part Number 08591-60098  
Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C38	0160-4801	1	CAP-FXD 100pF +-5% 100 V CER C0G	28480	0160-4801
C39	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C40	0160-4813	1	CAP-FXD 180pF +-5% 100 V CER C0G	28480	0160-4813
C41	0160-4814	1	CAP-FXD 150pF +-5% 100 V CER C0G	28480	0160-4814
C42	0160-4389	1	CAP-FXD 100pF +-5% 200 V CER C0G	28480	0160-4389
C43	0160-5349	1	CAP-FXD 200pF +-5% 100 V CER C0G	28480	0160-5349
C44	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C45	0160-4547	1	CAP-FXD 150pF +-5% 200 V CER C0G	28480	0160-4547
C46	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C47	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C48	0160-4832	1	CAP-FXD 0.01uF +-10% 100 V CER X7R	28480	0160-4832
C49	0160-4406	1	CAP-FXD 3300pF +-5% 100 V CER C0G	28480	0160-4406
C51	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C52	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C53	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C54	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C55	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C56	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C57	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C58	0160-4814	1	CAP-FXD 150pF +-5% 100 V CER C0G	28480	0160-4814
C60	0160-4814	1	CAP-FXD 150pF +-5% 100 V CER C0G	28480	0160-4814
C61	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C62	0160-3874	1	CAP-FXD 10pF +-5% 200 V CER C0G	28480	0160-3874
C63	0160-4523	1	CAP-FXD 16pF +-5% 200 V CER C0G	28480	0160-4523
C64	0160-4786	1	CAP-FXD 27pF +-5% 100 V CER C0G	28480	0160-4786
C65	0160-3874	1	CAP-FXD 10pF +-5% 200 V CER C0G	28480	0160-3874
C66	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C67	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C68	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C100	0160-4812	1	CAP-FXD 220pF +-5% 100 V CER C0G	28480	0160-4812
C101	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C102	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C103	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C104	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C105	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554



**HP Part Number 08591-60098  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C106	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C107	0121-0061	1	CAP-VAR 18pF 5.5pF 350 V CER	28480	0121-0061
C108	0160-4383	1	CAP-FXD 6.8pF +-7.35% 200 V CER C0G	28480	0160-4383
C109	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C110	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C111	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C112	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C113	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C114	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C115	0180-3844	1	CAP-FXD 3.3uF +-10% 35 V TA	28480	0180-3844
C116	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C117	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C118	0160-4399	1	CAP-FXD 0.66pF +-50% 50 V CER C0G	28480	0160-4399
C119	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C120	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C121	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C122	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C123	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C124	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C125	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C126	0160-4793	1	CAP-FXD 6.8pF +-7.35% 100 V CER C0G	28480	0160-4793
C127	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C128	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C129	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C130	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C131	0160-4557	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4557
C132	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C133	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C134	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C136	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C137	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C138	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C139	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C140	0160-3874	1	CAP-FXD 10pF +-5% 200 V CER C0G	28480	0160-3874
C141	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879

\*Indicates factory-selected value

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Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C200	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C201	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C202	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C203	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C204	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C205	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C206	0160-4381	1	CAP-FXD 1.5pF +-16.67% 200 V CER C0G	28480	0160-4381
C207	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C208	0160-4799	1	CAP-FXD 2.2pF +-11.36% 100 V CER C0G	28480	0160-4799
C209	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C210	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C211	0160-4790	1	CAP-FXD 12pF +-5% 100 V CER C0G	28480	0160-4790
C212	0160-4822	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4822
C213	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C214	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C215	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C216	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C217	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C218	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C219	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C220	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C221	0160-4833	1	CAP-FXD 0.022uF +-10% 100 V CER X7R	28480	0160-4833
C222	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C223	0160-4554	1	CAP-FXD 0.01uF +-20% 50 V CER X7R	28480	0160-4554
C224	0180-3846	1	CAP-FXD 15uF +-10% 25 V TA	28480	0180-3846
C225	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C226	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C227	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C228	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C229	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C230	0160-4030	1	CAP-FXD 820pF +-5% 100 V CER C0G	28480	0160-4030
C231	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C232	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C233	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C234	0160-4030	1	CAP-FXD 820pF +-5% 100 V CER C0G	28480	0160-4030

**HP Part Number 08591-60098  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C235	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C236	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C237	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C238	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C239	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C240	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C241	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C300	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C301	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C302	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C303	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C304	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C305	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C306	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C307	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C308	0160-4623	1	CAP-FXD 3900pF +-5% 100 V CER C0G	28480	0160-4623
C309	0160-5404	1	CAP-FXD 360pF +-5% 100 V CER C0G	28480	0160-5404
C310	0160-6414	1	CAP-FXD 2400pF +-5% 100 V CER C0G	28480	0160-6414
C311	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C312	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C313	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C314	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C316	0160-4800	1	CAP-FXD 120pF +-5% 100 V CER C0G	28480	0160-4800
C317	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C318	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C319	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C320	0160-4040	1	CAP-FXD 1000pF +-5% 100 V CER C0G	28480	0160-4040
C321	0160-4812	1	CAP-FXD 220pF +-5% 100 V CER C0G	28480	0160-4812
CR1	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR2	0122-0161	1	DIODE-VVC 2.15PF 7% C 3/C25-MIN=4.5	28480	0122-0161
CR3	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR4	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR6	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR7	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR100	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150

\*Indicates factory-selected value

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**HP Part Number 08591-60098  
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Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR101	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR200	1901-0535	1	DIODE-SCHOTTKY SM SIG	28480	1901-0535
CR201	1902-0951	1	DIODE-ZNR 5.1V 5% DO-35 PD=.4W TC=+.035%	02037	SZ30035-9RL
J1	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J2	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J3	1252-0637	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0637
J4	1252-0448	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0448
J5	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
J8	1250-0257	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0257
L1	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L2	9100-0539	1	INDUCTOR RF-CH-MLD 10uH +-5%	28480	9100-0539
L3	9100-3560	1	INDUCTOR RF-CH-MLD 5.6uH +-5%	28480	9100-3560
L4	9100-2254	1	INDUCTOR RF-CH-MLD 390nH +-10%	28480	9100-2254
L5	9135-0075	1	INDUCTOR RF-CH-MLD 43nH +-6.047%	05524	
L9	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L10	9100-2260	1	INDUCTOR RF-CH-MLD 1.8uH +-10%	28480	9100-2260
L11	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L12	9100-1637	1	INDUCTOR RF-CH-MLD 120uH +-5%	28480	9100-1637
L100	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L101	9140-0142	1	INDUCTOR RF-CH-MLD 2.2uH +-10%	28480	9140-0142
L102	9100-2252	1	INDUCTOR RF-CH-MLD 270nH +-10%	28480	9100-2252
L103	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L104	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L105	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L106	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L107	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L108	9100-2251	1	INDUCTOR RF-CH-MLD 220nH +-10%	28480	9100-2251
L109	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L110	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L111	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L201	9100-2247	1	INDUCTOR RF-CH-MLD 100nH +-10%	28480	9100-2247
L202	9100-2891	1	INDUCTOR RF-CH-MLD 50nH +-10%	28480	9100-2891
L203	9100-2256	1	INDUCTOR RF-CH-MLD 560nH +-10%	28480	9100-2256
L204	9100-2262	1	INDUCTOR RF-CH-MLD 3.9uH +-10%	28480	9100-2262
L205	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210

**HP Part Number 08591-60098**  
**Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L206	9140-0210	1	INDUCTOR RF-CH-MLD 100uH +-5%	28480	9140-0210
L300	9100-1651	1	INDUCTOR RF-CH-MLD 750uH +-5%	28480	9100-1651
L301	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0144
L302	9100-2276	1	INDUCTOR RF-CH-MLD 100uH +-10%	28480	9100-2276
L303	9140-0144	1	INDUCTOR RF-CH-MLD 4.7uH +-10%	28480	9140-0144
MP4	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP5	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP6	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP7	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP8	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP9	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP10	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP11	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP12	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP13	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP14	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP15	0515-0368	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP16	0515-0367	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP17	0515-0367	1	SCREW-MACHINE ASSEMBLY M2.5 X 0.45	05610	
MP18	0515-0894	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	05610	
MP19	0515-0894	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	05610	
MP20	0515-0894	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	05610	
MP21	0515-0894	1	SCREW-MACH M2.5 X 0.45 6MM-LG PAN-HD	05610	
MP22	5022-0070	1	BOT SHLD-CNTRLK	28480	5022-0070
MP23	5063-0233	1	AY-TOP SHIELD	28480	5063-0233
Q1	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q2	1854-0345	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q3	1854-0591	1	TRANSISTOR NPN SI PD=180MW FT=4GHZ	28480	1854-0591
Q4	1854-1032	1	TRANSISTOR NPN SI PD=2.5W	28480	1854-1032
Q5	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q7	1855-0402	1	TRANSISTOR J-FET 2N5115 P-CHAN D-MODE	02237	
Q200	1854-0345	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q201	1854-0591	1	TRANSISTOR NPN SI PD=180MW FT=4GHZ	28480	1854-0591
Q202	1854-0345	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345
Q203	1854-0345	1	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	28480	1854-0345

\*Indicates factory-selected value

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**HP Part Number 08591-60098  
Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q204	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q205	1855-0414	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	02237	
Q206	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q207	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q208	1855-0518	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0518
Q209	1855-0518	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0518
Q210	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
R1	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R2	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R3	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R5	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R6	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R7	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R8	0698-0082	1	RESISTOR 464 +-1% .125W TF TC=0+-100	28480	0698-0082
R9	0698-7240	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	28480	0698-7240
R10	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R11	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R12	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	28480	0757-0280
R13	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R14	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R15	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R16	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R17	0757-0419	1	RESISTOR 681 +-1% .25W TF TC=0+-100	28480	0757-0419
R18	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R19	0757-0440	1	RESISTOR 7.5K +-1% .125W TF TC=0+-100	28480	0757-0440
R20	0698-7197	1	RESISTOR 23.7 +-1% .05W TF TC=0+-100	28480	0698-7197
R21	0698-7283	1	RESISTOR 90.9K +-1% .05W TF TC=0+-100	28480	0698-7283
R22	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R23	0698-3443	1	RESISTOR 287 +-1% .125W TF TC=0+-100	28480	0698-3443
R24	0698-3443	1	RESISTOR 287 +-1% .125W TF TC=0+-100	28480	0698-3443
R25	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R26	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R28	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R29	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R30	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212

**HP Part Number 08591-60098**  
**Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R31	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R34	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R35	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R36	0698-7258	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	28480	0698-7258
R37	0698-7258	1	RESISTOR 8.25K +-1% .05W TF TC=0+-100	28480	0698-7258
R39	0698-7252	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	28480	0698-7252
R40	0698-7252	1	RESISTOR 4.64K +-1% .05W TF TC=0+-100	28480	0698-7252
R41	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R42	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R43	0698-7239	1	RESISTOR 1.33K +-1% .05W TF TC=0+-100	28480	0698-7239
R44	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R45	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R46	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R47	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R51	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R52	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R53	0757-0401	1	RESISTOR 100 +-1% .125W TF TC=0+-100	28480	0757-0401
R54	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R55	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R56	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R57	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R100	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R101	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R102	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R104	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R105	0698-7282	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	28480	0698-7282
R106	0698-7242	1	RESISTOR 1.78K +-1% .05W TF TC=0+-100	28480	0698-7242
R107	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R108	0698-7282	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	28480	0698-7282
R109	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R110	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R111	0698-7240	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	28480	0698-7240
R112	0698-7282	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	28480	0698-7282
R113	0698-7240	1	RESISTOR 1.47K +-1% .05W TF TC=0+-100	28480	0698-7240
R114	0698-7282	1	RESISTOR 82.5K +-1% .05W TF TC=0+-100	28480	0698-7282

\*Indicates factory-selected value

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**HP Part Number 08591-60098  
Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R115	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R116	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R118	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R119	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R120	0757-0394	1	RESISTOR 51.1 +-1% .125W TF TC=0+-100	28480	0757-0394
R121	0698-7248	1	RESISTOR 3.16K +-1% .05W TF TC=0+-100	28480	0698-7248
R122	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R123	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R124	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R125	0698-3429	1	RESISTOR 19.6 +-1% .125W TF TC=0+-100	28480	0698-3429
R126	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R127	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R128	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R129	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R130	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R131	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R132	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R200	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R201	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R202	0757-0418	1	RESISTOR 619 +-1% .125W TF TC=0+-100	28480	0757-0418
R203	0757-0418	1	RESISTOR 619 +-1% .125W TF TC=0+-100	28480	0757-0418
R204	0698-7228	1	RESISTOR 464 +-1% .05W TF TC=0+-100	28480	0698-7228
R205	0698-7206	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	28480	0698-7206
R206	0698-7206	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	28480	0698-7206
R207	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R208	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R209	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R210	0698-7264	1	RESISTOR 14.7K +-1% .05W TF TC=0+-100	28480	0698-7264
R211	0698-7231	1	RESISTOR 619 +-1% .05W TF TC=0+-100	28480	0698-7231
R212	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R213	0698-7265	1	RESISTOR 16.2K +-1% .05W TF TC=0+-100	28480	0698-7265
R214	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R215	0757-0428	1	RESISTOR 1.62K +-1% .125W TF TC=0+-100	28480	0757-0428
R216	0698-7255	1	RESISTOR 6.19K +-1% .05W TF TC=0+-100	28480	0698-7255
R217	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420



**HP Part Number 08591-60098**  
**Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R218	0757-0317	1	RESISTOR 1.33K +-1% .125W TF TC=0+-100	28480	0757-0317
R219	0757-1094	1	RESISTOR 1.47K +-1% .125W TF TC=0+-100	28480	0757-1094
R220	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R221	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R223	0757-0421	1	RESISTOR 825 +-1% .125W TF TC=0+-100	28480	0757-0421
R224	0698-7288	1	RESISTOR 147K +-1% .05W TF TC=0+-100	28480	0698-7288
R225	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	28480	0757-0420
R226	0698-3155	1	RESISTOR 4.64K +-1% .125W TF TC=0+-100	28480	0698-3155
R227	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R228	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R229	0698-3151	1	RESISTOR 2.87K +-1% .125W TF TC=0+-100	28480	0698-3151
R230	0757-0290	1	RESISTOR 6.19K +-1% .125W TF TC=0+-100	28480	0757-0290
R231	0757-0416	1	RESISTOR 511 +-1% .125W TF TC=0+-100	28480	0757-0416
R232	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R233	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R234	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R235	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R236	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R237	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R238	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R239	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R240	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R241	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R242	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R243	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R244	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R245	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R246	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R247	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R248	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R249	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R251	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R252	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R253	0698-8816	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	28480	0698-8816
R254	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260

\*Indicates factory-selected value

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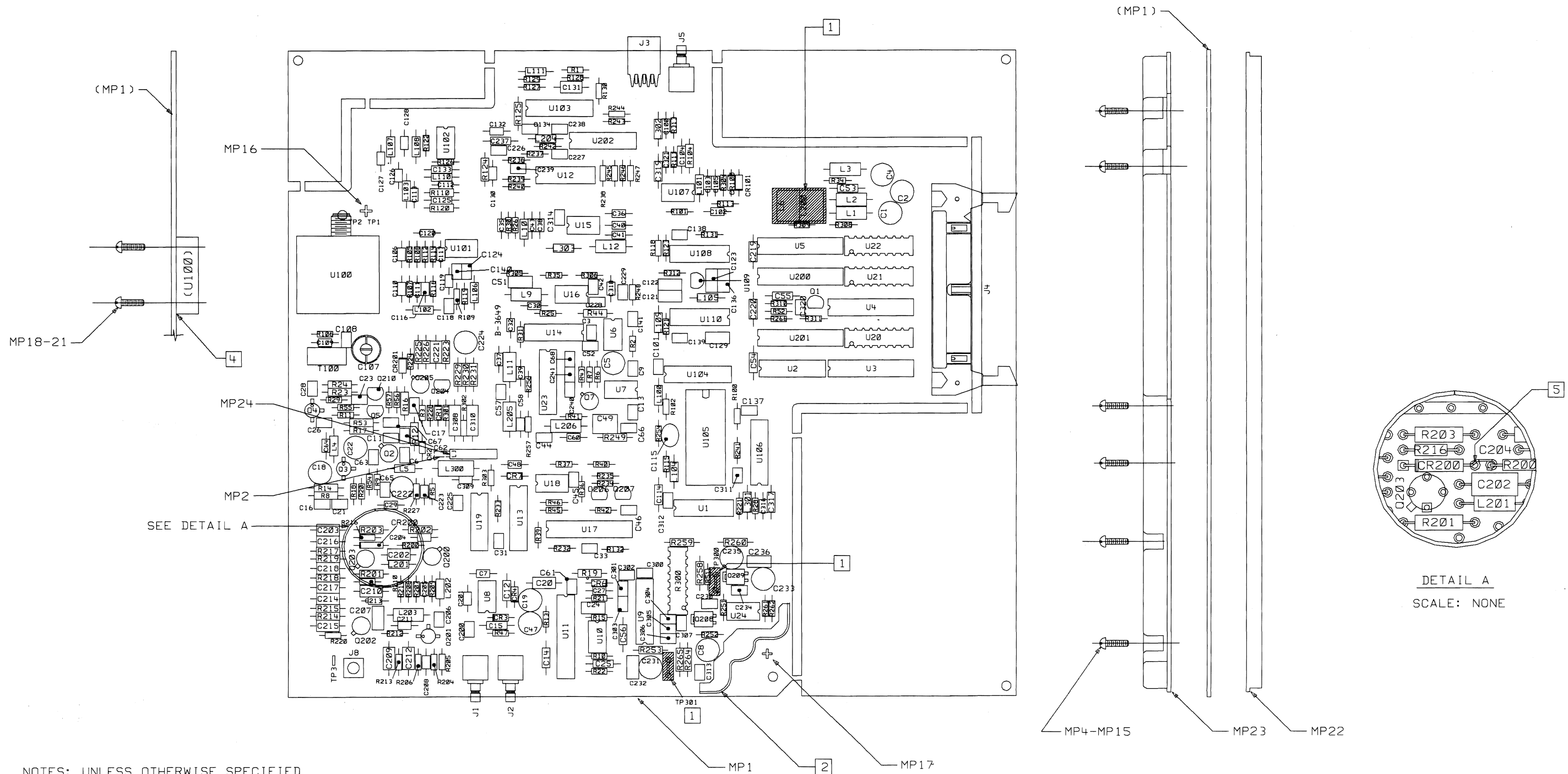
**HP Part Number 08591-60098  
Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R256	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R257	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R258	0698-6322	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0698-6322
R259	0698-6353	1	RESISTOR 50K +-0.1% .125W TF TC=0+-25	28480	0698-6353
R260	0698-8816	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	28480	0698-8816
R261	0698-7205	1	RESISTOR 51.1 +-1% .05W TF TC=0+-100	28480	0698-7205
R262	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R264	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R265	0757-0405	1	RESISTOR 162 +-1% .125W TF TC=0+-100	28480	0757-0405
R266	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R300	1810-0037	1	NET-RES 8 1.0K OHM 16-DIP	28480	1810-0037
R301	0698-7249	1	RESISTOR 3.48K +-1% .05W TF TC=0+-100	28480	0698-7249
R302	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R303	0698-7251	1	RESISTOR 4.22K +-1% .05W TF TC=0+-100	28480	0698-7251
R304	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R305	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R306	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R308	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R309	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R310	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R311	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R312	0699-1748	1	RESISTOR 287K +-1% .05W TF TC=0+-100	28480	0699-1748
R313	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
T100	9100-4772	1	TRANSFORMER-RF FREQ RANGE; 2 TO 600 MHz	02739	TM04-2
TP3	0360-0535	1	CONNECTOR-SGL CONT TML-TS-PT	13296	330.100-TIN PLATED
U1	1820-2921	1	IC INV CMOS/HC HEX	28480	1820-2921
U2	1820-3847	1	IC DCDR-DEMURX CMOS/HCT BIN 3-TO-8-LINE	28480	1820-3847
U3	1820-3848	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U4	1820-3848	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U5	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U6	1826-1431	1	IC PWR MGT-V-REF-FXD 4.9975/5.0025V 8	28480	1826-1431
U7	1826-2089	1	IC OP AMP LOW-NOISE DUAL 8 PIN DIP-C	28480	1826-2089
U8	1820-6140	1	IC DIVR ECL DIV-X-N	28480	1820-6140
U9	1826-0639	1	D/A 8-BIT 16-PLASTIC CMOS	28480	1826-0639
U10	1826-0547	1	IC OP AMP LOW-BIAS-H-IMP DUAL 8 PIN	28480	1826-0547

**HP Part Number 08591-60098  
Counterlock (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U11	1820-3405	1	IC MISC CMOS 4-BIT	28480	1820-3405
U12	1820-2684	1	IC GATE TTL/F NAND QUAD 2-INP	02237	74F00PC.
U13	1820-2772	1	IC FF TTL/ALS J-K NEG-EDGE-TRIG	28480	1820-2772
U14	1820-6408	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U15	1826-1913	1	IC OSC DBL-BAL 8 PIN DIP-P	28480	1826-1913
U16	1826-0065	1	IC COMPARATOR PRCN 8 PIN DIP-P	28480	1826-0065
U17	1820-3405	1	IC MISC CMOS 4-BIT	28480	1820-3405
U18	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0547
U19	1820-2656	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-2656
U20	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U21	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U22	1810-0301	1	NET-RES 8 51.0 OHM 16-DIP	28480	1810-0301
U23	1820-3191	1	IC MUXR/DATA-SEL CMOS/HC 2-TO-1-LINE	02237	MM74HC257N
U24	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPD DUAL 8 PIN	28480	1826-0547
U100	5086-7806	1	SAMPLER AY	28480	5086-7806
U101	1826-1945	1	IC DIFF AMPL 8 PIN DIP-P	28480	1826-1945
U102	1826-1945	1	IC DIFF AMPL 8 PIN DIP-P	28480	1826-1945
U103	1820-1888	1	IC PRESCR ECL	28480	1820-1888
U104	1820-3397	1	IC MUXR/DATA-SEL TTL/ALS 4-TO-1-LINE	28480	1820-3397
U105	1820-4669	1	IC-PROGRAMMABLE INTERVAL TIMER - 8MHZ	28480	1820-4669
U106	1820-6219	1	IC CNTR CMOS/HCT BIN SYNC/ASYN	28480	1820-6219
U107	1826-1946	1	IC RF/IF AMPL 8 PIN DIP-P	28480	1826-1946
U108	1820-6215	1	IC-INTERFACE RCVR BIPOLAR LINE DUAL	28480	1820-6215
U109	1826-0285	1	IC PWR MGT-V-REG-FXD-NEG -4.8/-5.2V 3	28480	1826-0285
U110	1820-3537	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG	28480	1820-3537
U200	1820-3456	1	IC DRVR CMOS/HCT BUS OCTL	28480	1820-3456
U201	1820-3848	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-3848
U202	1820-3090	1	IC CNTR TTL/F BIN SYNCHRO POS-EDGE-TRIG	02237	74F161APC.

\*Indicates factory-selected value



NOTES: UNLESS OTHERWISE SPECIFIED

- 1 DO NOT LOAD L6, L200, TP300 AND TP301 ON THIS VERSION.
- 2 MASK AREA FOR SHIELD TOP AND BOTTOM BEFORE FLOW SOLDER PROCESS.
3. USE RAW BOARD PART NUMBER 08591-20098
- 4 NO TRACES UNDER U100, TOP SIDE ONLY.
- 5 UNSOLDER ANODE OF CR200 AND RESOLDER AT R200 AS SHOWN IN DETAIL A.

SEE MATERIAL LIST 08591-60098

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                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

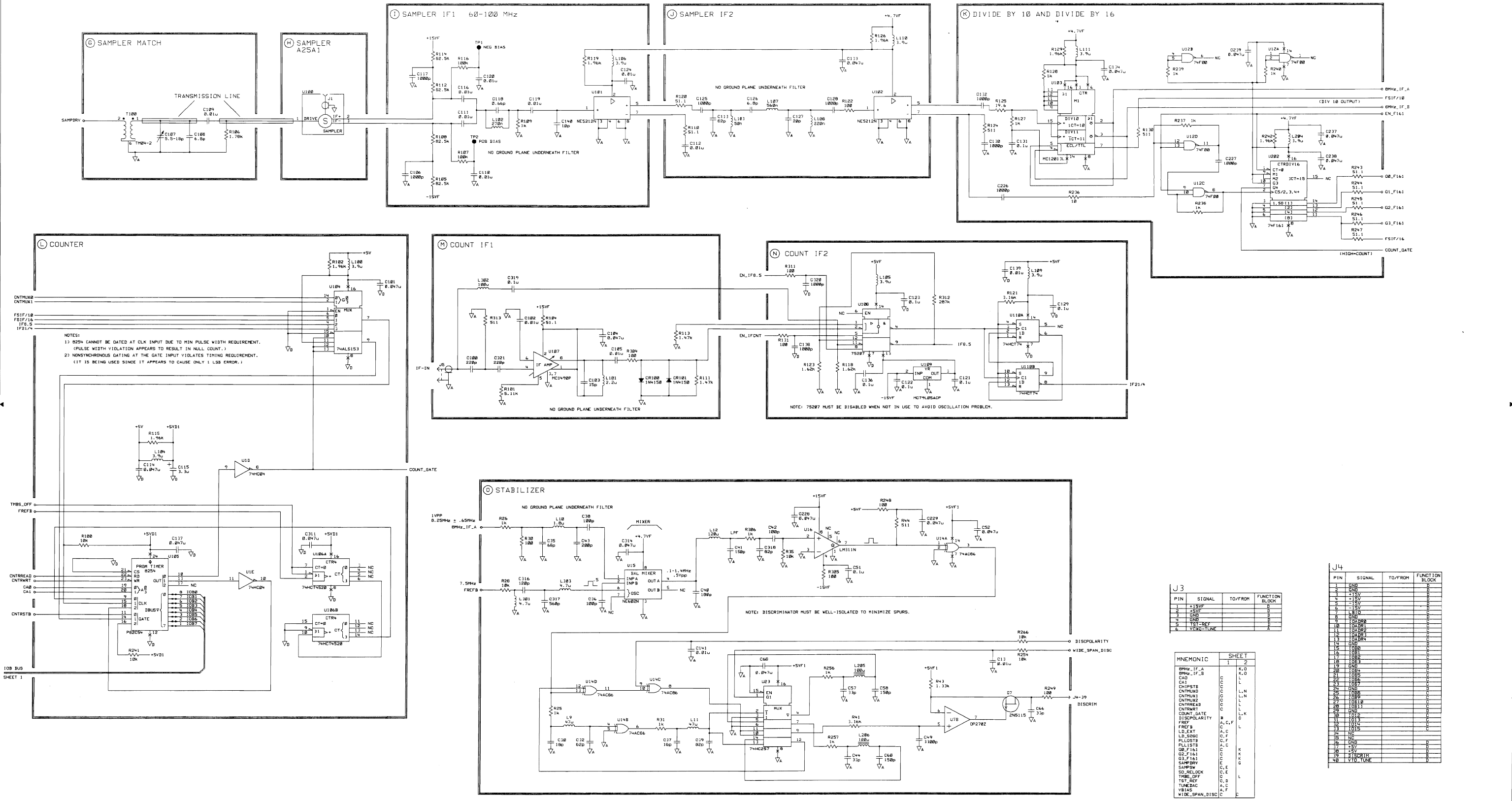
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RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
COUNTERLOCK

alaca098 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08591-60098 PART NUMBER
D-08591-60098-2	



SAMPLER/SAMPLER IF/COUNT IF CIRCUITRY



NOTES:  
 1) 8254 CANNOT BE GATED AT CLK INPUT DUE TO MIN PULSE WIDTH REQUIREMENT. (PULSE WIDTH VIOLATION APPEARS TO RESULT IN NULL COUNT.)  
 2) NONSYNCHRONOUS GATING AT THE GATE INPUT VIOLATES TIMING REQUIREMENT. (IT IS BEING USED SINCE IT APPEARS TO CAUSE ONLY 1 LSB ERROR.)

NOTE: 75287 MUST BE DISABLED WHEN NOT IN USE TO AVOID OSCILLATION PROBLEM.

NOTE: DISCRIMINATOR MUST BE WELL-ISOLATED TO MINIMIZE SPURS.

NOTE: HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY  
 RAW BD = 08591-20098

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J3

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	+5V		D
2	+5V		D
3	+5V		D
4	GN		D
5	GN		D
6	GN		D
7	GN		D
8	GN		D
9	GN		D
10	GN		D
11	GN		D
12	GN		D
13	GN		D
14	GN		D
15	GN		D
16	GN		D
17	GN		D
18	GN		D
19	GN		D
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32	GN		D
33	GN		D
34	GN		D
35	GN		D
36	GN		D
37	GN		D
38	GN		D
39	GN		D
40	GN		D

J4

PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
1	GN		D
2	GN		D
3	GN		D
4	GN		D
5	GN		D
6	GN		D
7	GN		D
8	GN		D
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37	GN		D
38	GN		D
39	GN		D
40	GN		D

DRAWN BY	DATE	SCHEMATIC, PWA COUNTERLOCK	s2aca098 FILENAME SCALE NONE SHEET 2 OF 2 08591-60098 PART NUMBER D-08591-60098-1
ENGINEER/CHECKER	DATE		
RELEASE TO PROD.	DATE		
SUPERSEDES DWG.			

# **Component-Level Information Packet for 08590-60366**

## **Dual I/O**



**HP Part No. 08590-90257  
Printed in USA June 1997**

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**HP Part Number 08590-60366**  
**Dual I/O**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C3	0180-3749	1	CAP-FXD 0.22uF +-20% 35 V TA	28480	0180-3749
C4	0180-3749	1	CAP-FXD 0.22uF +-20% 35 V TA	28480	0180-3749
C5	0180-3635	1	CAP-FXD 470uF +-20% 25 V AL-ELCTLT	28480	0180-3635
C6	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C7	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C8	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C9	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C10	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C11	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C12	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C13	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C14	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C15	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C16	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C17	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C18	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C19	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C20	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C21	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C22	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C24	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C25	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C26	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C27	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C30	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C32	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C35	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C44	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C45	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C46	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C47	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C48	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C49	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C50	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C51	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849

\*Indicates factory-selected value

CLIP 08590-90257 1

**HP Part Number 08590-60366**  
**Dual I/O (continued)**

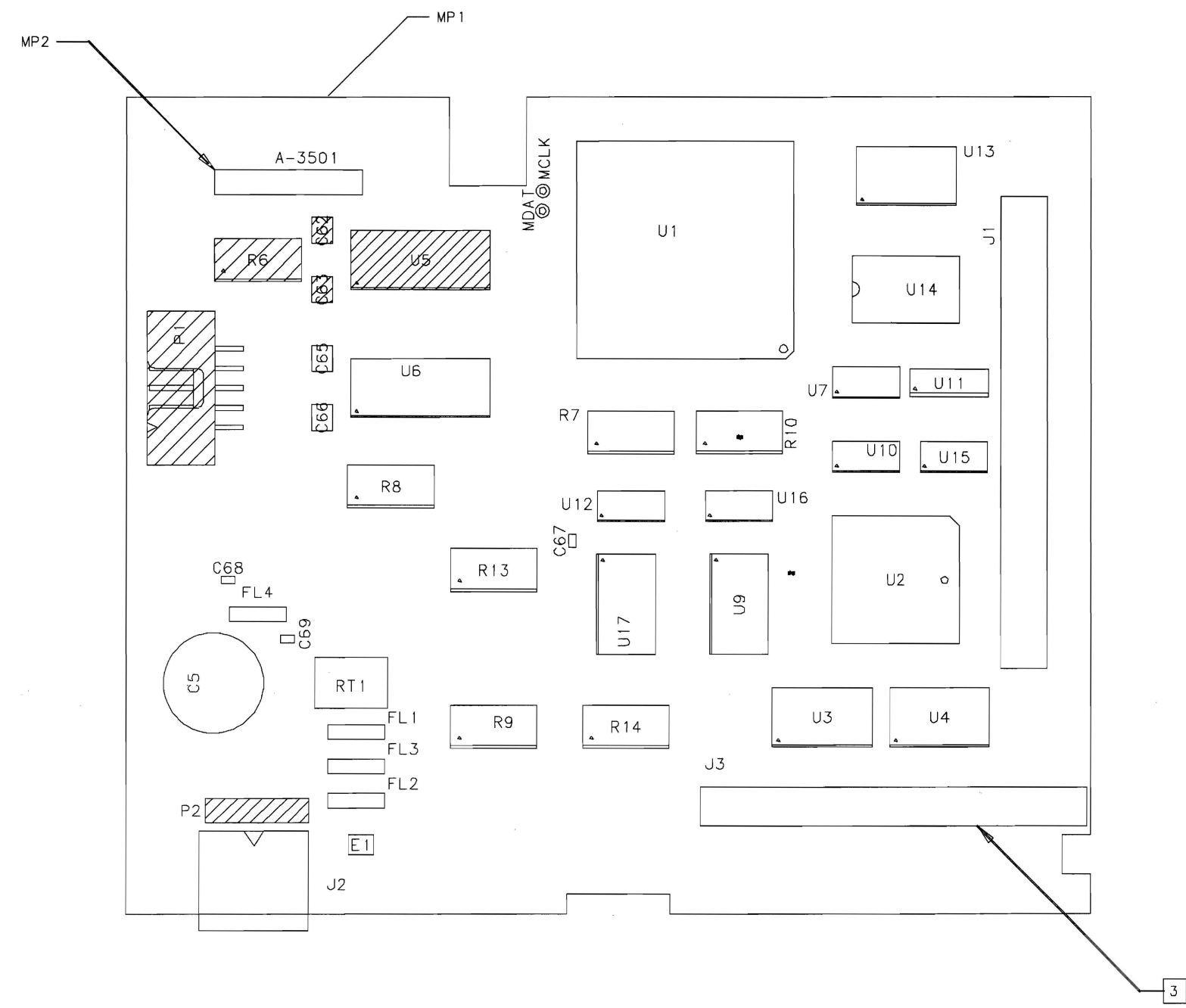
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C52	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C53	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C54	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C55	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C56	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C57	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C58	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C59	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C60	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C64	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C65	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C66	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C67	0160-7751	1	CAP-FXD 0.01uF +-10% 50 V CER X7R	28480	0160-7751
C68	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
C69	0160-7849	1	CAP-FXD 220pF +-5% 50 V CER C0G	28480	0160-7849
E1	9170-1421	1	CORE-SHIELDING BEAD	28480	9170-1421
FL1	9135-0461	1	FILTER-SUPPRESSION EMI; SMT; WORKING	09939	NFM61R10T102
FL2	9135-0461	1	FILTER-SUPPRESSION EMI; SMT; WORKING	09939	NFM61R10T102
FL3	9135-0461	1	FILTER-SUPPRESSION EMI; SMT; WORKING	09939	NFM61R10T102
FL4	9135-0461	1	FILTER-SUPPRESSION EMI; SMT; WORKING	09939	NFM61R10T102
J1	1252-1469	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1469
J2	1252-3439	1	CONNECTOR 6-PIN F CIRCULAR DIN	01380	749180-1
J3	1252-6258	1	CONN-POST TYPE 2.0-PIN-SPCG-MTG-END	28480	1252-6258
L1	9140-1100	1	INDUCTOR 330nH +-5% 2.8W-mmX3.4LG-mm	28480	9140-1100
R2	0699-1384	1	RESISTOR 4.64K +-1% .125W TKF TC=0+-100	28480	0699-1384
R5	0699-1357	1	RESISTOR 34.8 +-1% .125W TKF TC=0+-100	28480	0699-1357
R7	1810-1066	1	NETWORK-RES 16-SMD 33.0 OHM X 8	28480	1810-1066
R8	1810-1066	1	NETWORK-RES 16-SMD 33.0 OHM X 8	28480	1810-1066
R9	1810-1066	1	NETWORK-RES 16-SMD 33.0 OHM X 8	28480	1810-1066
R10	1810-1128	1	NETWORK-RES 16-SMD 4.7K OHM X 15	28480	1810-1128
R13	1810-1128	1	NETWORK-RES 16-SMD 4.7K OHM X 15	28480	1810-1128
R14	1810-1128	1	NETWORK-RES 16-SMD 4.7K OHM X 15	28480	1810-1128
R15	0699-1503	1	RESISTOR 0 CWM	28480	0699-1503
R17	0699-1503	1	RESISTOR 0 CWM	28480	0699-1503
RT1	0837-0439	1	THERMISTOR-SWITCHING CHIP; SMT; MIN/MAX	02145	SMD150

**HP Part Number 08590-60366**  
**Dual I/O (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U1	1821-1618	1	IC-DUAL UARTs; IDE INTERFACE; SUPER I/O	28480	1821-1618
U2	1821-1721	1	IC-HPIB CONTROLLER	28480	1821-1721
U3	1820-6814	1	IC-INTERFACE XCVR BIPOLAR INSTRUMENT BUS	28480	1820-6814
U4	1820-6176	1	IC-INTERFACE XCVR BIPOLAR BUS OCTL	28480	1820-6176
U6	1821-0787	1	IC-INTERFACE XCVR CMOS RS-232C	28480	1821-0787
U7	1820-4219	1	IC GATE CMOS/HC NOR TPL 3-INP	28480	1820-4219
U9	1820-5218	1	IC DRVR TTL/F LINE OCTL	28480	1820-5218
U10	1820-5870	1	IC INV TTL/F HEX	02237	74F04SCX.
U11	1820-5130	1	IC DCDR-DEMUXR TTL/F BIN 8-TO-1-LINE	28480	1820-5130
U12	1820-4861	1	IC BFR TTL/F NAND QUAD 2-INP	28480	1820-4861
U13	1820-5807	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5807
U14	1813-0710	1	CLK-OSC-XTAL STD 24.0-MHZ 0.01%	28480	1813-0710
U15	1820-5040	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG	28480	1820-5040
U16	1820-5040	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG	28480	1820-5040
U17	1820-7796	1	IC DRVR BICMOS/ABT LINE OCTL	28480	1820-7796
U18	1820-4687	1	IC GATE TTL/F NOR QUAD 2-INP	28480	1820-4687

\*Indicates factory-selected value

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-08407 IS		



NOTES: UNLESS OTHERWISE SPECIFIED:

1. THIS ASSEMBLY USES RAW BOARD PART NUMBER 08590-20366.
2. DO NOT LOAD CROSS HATCHED COMPONENTS.
3. J3 IS LOADED IN OUTER ROWS OF HOLES WITH THE SHORT LEADS FACING THE OUTER EDGE OF THE BOARD.

TOP SIDE  
FOR MATERIAL LIST SEE 08590-60366

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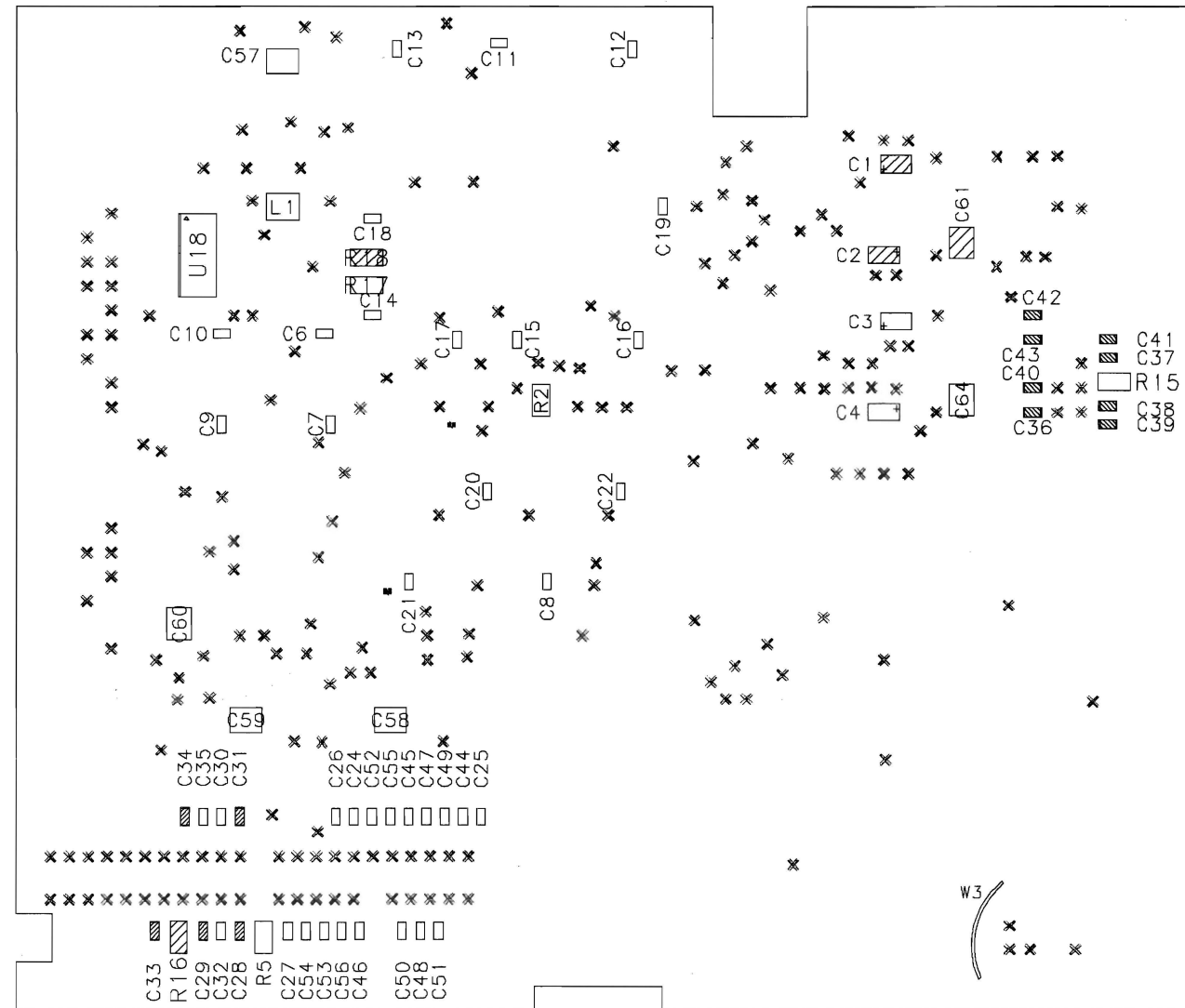
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THIRD ANGLE  
PROJECTION   
DO NOT SCALE THIS DRAWING

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ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
1/0  
TITLE

MENTOR FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	PART NUMBER 08590-60366
C-08590-60366-2	

SYM	REVISIONS	APPROVED	DATE
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


NOTES: UNLESS OTHERWISE SPECIFIED

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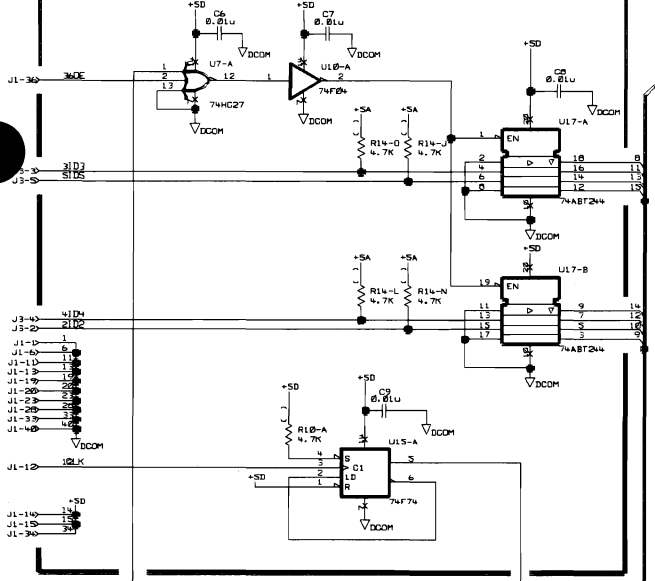
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RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
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 TITLE

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SCALE NONE	
SHEET 2 OF 2	08590-60366 PART NUMBER
C-08590-60366-2	

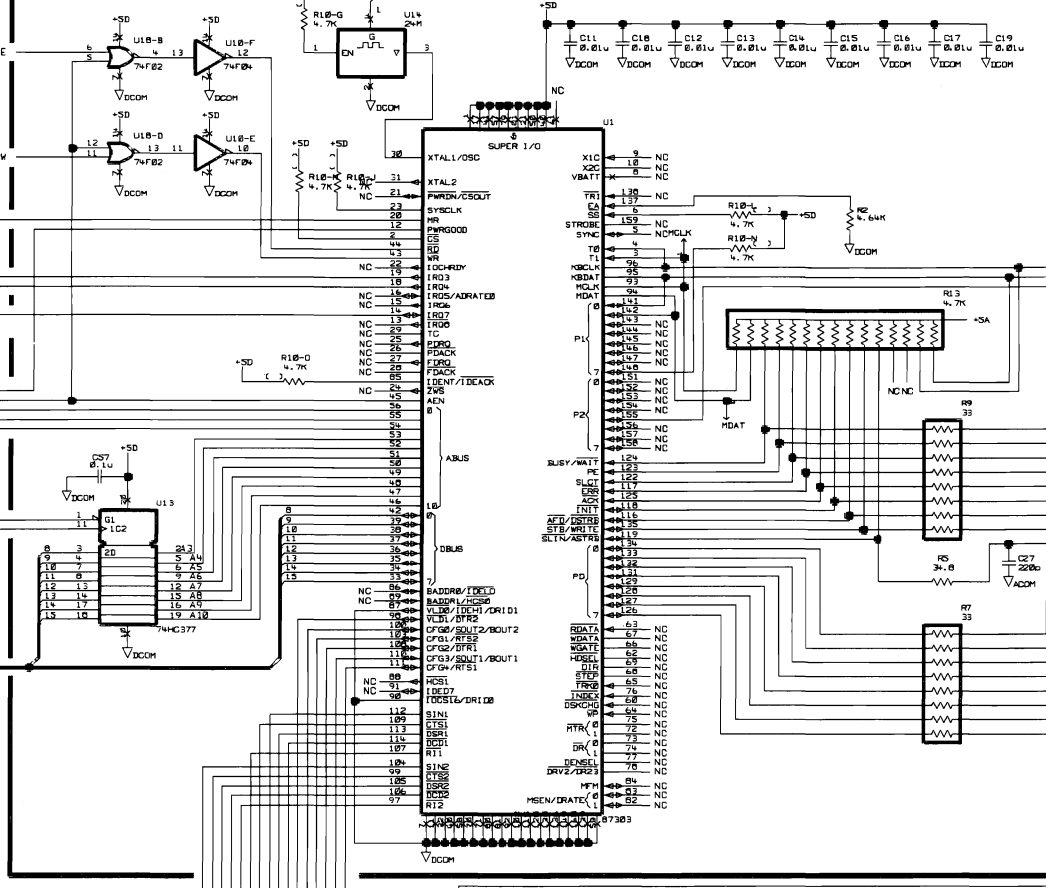
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCD 53-08407 RS		
B	CHANGED PER PCD 53-09621 HK		

INTERFACE ID AND CLOCK DIVIDER

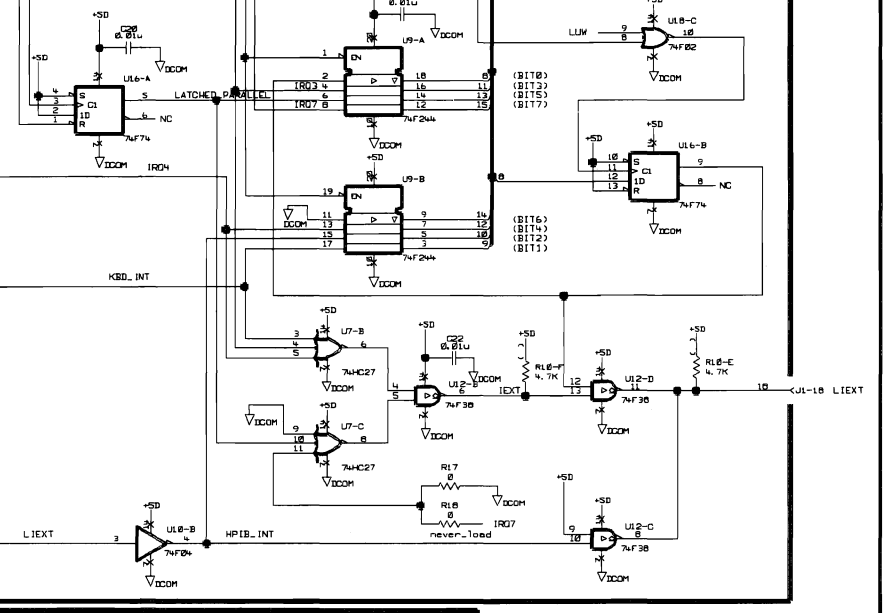


PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
J1-1	DBUS	A	DBUS
J1-2	DBUS	A	DBUS
J1-3	DBUS	A	DBUS
J1-4	DBUS	A	DBUS
J1-5	DBUS	A	DBUS
J1-6	DBUS	A	DBUS
J1-7	DBUS	A	DBUS
J1-8	DBUS	A	DBUS
J1-9	DBUS	A	DBUS
J1-10	DBUS	A	DBUS
J1-11	DBUS	A	DBUS
J1-12	DBUS	A	DBUS
J1-13	DBUS	A	DBUS
J1-14	DBUS	A	DBUS
J1-15	DBUS	A	DBUS
J1-16	DBUS	A	DBUS
J1-17	DBUS	A	DBUS
J1-18	DBUS	A	DBUS
J1-19	DBUS	A	DBUS
J1-20	DBUS	A	DBUS
J1-21	DBUS	A	DBUS
J1-22	DBUS	A	DBUS
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J1-25	DBUS	A	DBUS
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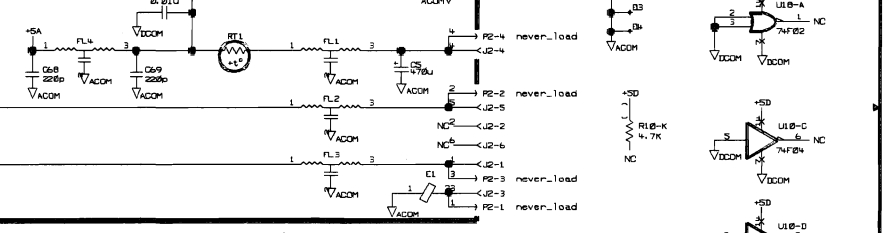
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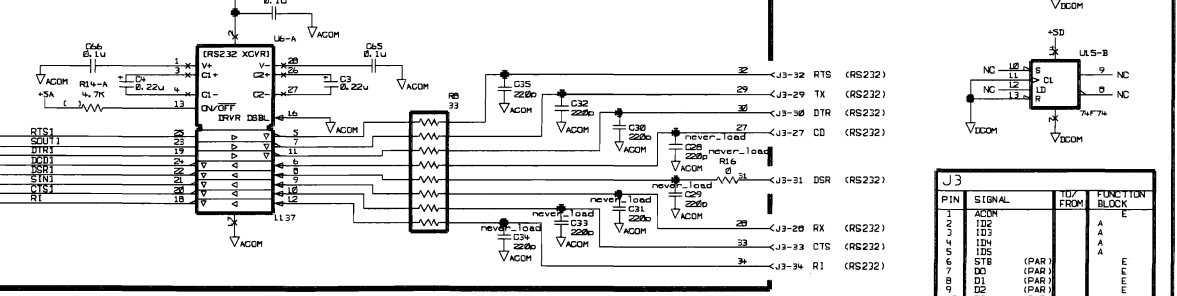
I/O INTERRUPT DETECTION/LATCHING



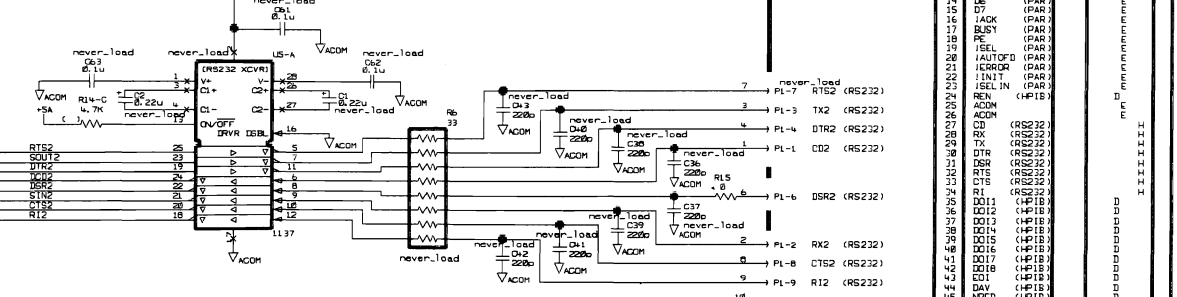
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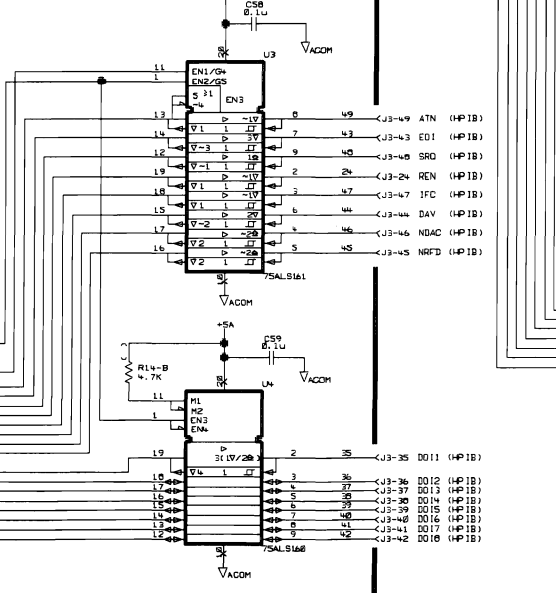
RS232 INPUT/OUTPUT BUFFERS



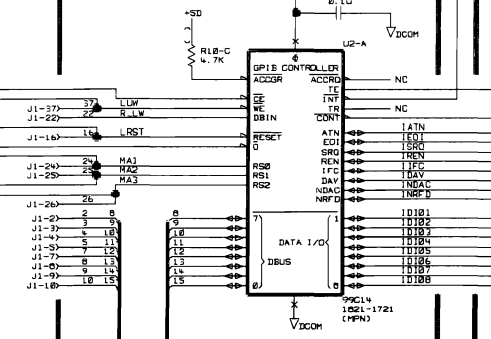
RS232 INPUT/OUTPUT BUFFERS



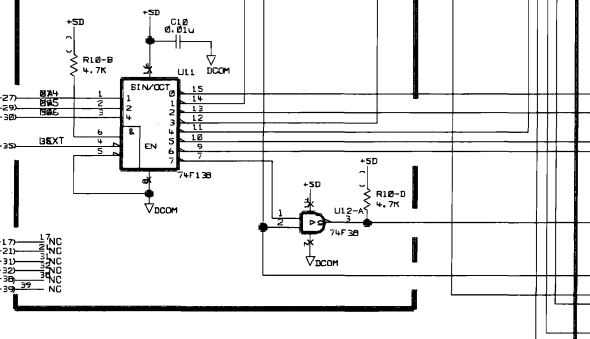
HP1B BUS DRIVERS



HP1B CONTROL



ADDRESS DECODER



PIN	SIGNAL	TO/FROM	FUNCTION BLOCK
J3-1	ACOM	A	ACOM
J3-2	ID3	A	ID3
J3-3	ID4	A	ID4
J3-4	ID5	A	ID5
J3-5	ID6	A	ID6
J3-6	ID7	A	ID7
J3-7	ID8	A	ID8
J3-8	ID9	A	ID9
J3-9	ID10	A	ID10
J3-10	ID11	A	ID11
J3-11	ID12	A	ID12
J3-12	ID13	A	ID13
J3-13	ID14	A	ID14
J3-14	ID15	A	ID15
J3-15	ID16	A	ID16
J3-16	ID17	A	ID17
J3-17	ID18	A	ID18
J3-18	ID19	A	ID19
J3-19	ID20	A	ID20
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J3-22	ID23	A	ID23
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J3-25	ID26	A	ID26
J3-26	ID27	A	ID27
J3-27	ID28	A	ID28
J3-28	ID29	A	ID29
J3-29	ID30	A	ID30
J3-30	ID31	A	ID31
J3-31	ID32	A	ID32
J3-32	ID33	A	ID33
J3-33	ID34	A	ID34
J3-34	ID35	A	ID35
J3-35	ID36	A	ID36
J3-36	ID37	A	ID37
J3-37	ID38	A	ID38
J3-38	ID39	A	ID39
J3-39	ID40	A	ID40
J3-40	ID41	A	ID41
J3-41	ID42	A	ID42
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J3-43	ID44	A	ID44
J3-44	ID45	A	ID45
J3-45	ID46	A	ID46
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J3-47	ID48	A	ID48
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J3-98	ID99	A	ID99
J3-99	ID100	A	ID100

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I/O

BA3501	HEWLETT
FILENAME	PACKARD
SCALE	NONE
SHEET 1 OF 1	08590-60366
PART NUMBER	

# **Component-Level Information Packet for 5062-7079**

## **Fast ADC**



**HP Part No. 5958-7174  
Printed in USA August 1995**

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**HP Part Number 5062-7079**  
**Fast ADC**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C2	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C3	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C4	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C5	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C6	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C7	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C8	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C9	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C10	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C11	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C12	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C13	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C14	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C15	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C16	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C17	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C18	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C19	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C20	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C21	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C22	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C23	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C24	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C25	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C26	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C27	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C28	0160-3879	1	CAP-FXD 0.01uF +-20% 100 V CER X7R	28480	0160-3879
C29	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C30	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C31	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C32	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C33	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C34	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C35	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575

\*Indicates factory-selected value

CLIP 5958-7174 1

**HP Part Number 5062-7079  
Fast ADC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C36	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C37	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C38	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C39	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C40	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C41	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C42	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C43	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C44	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C45	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C46	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C47	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C48	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
C49	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C50	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C51	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C52	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C53	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C54	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C56	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C58	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C59	0160-4084	1	CAP-FXD 0.1uF +-20% 50 V CER X7R	28480	0160-4084
C60	0160-0575	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-0575
E1	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
E2	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
E3	9170-1419	1	CORE-SHIELDING BEAD	28480	9170-1419
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
L1	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
L2	9100-1629	1	INDUCTOR RF-CH-MLD 47uH +-5%	28480	9100-1629
MP2	0403-0630	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP3	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	5002-0644	1	SHIELD-ADC	28480	5002-0644
Q1	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7222	1	RESISTOR 261 +-1% .05W TF TC=0+-100	28480	0698-7222
R2	0698-7234	1	RESISTOR 825 +-1% .05W TF TC=0+-100	28480	0698-7234

**HP Part Number 5062-7079  
Fast ADC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R3	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R4	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R5	0698-7222	1	RESISTOR 261 +-1% .05W TF TC=0+-100	28480	0698-7222
R6	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R7	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R8	0698-7198	1	RESISTOR 26.1 +-1% .05W TF TC=0+-100	28480	0698-7198
R10	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R11	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R12	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R13	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R14	0698-6377	1	RESISTOR 200 +-0.1% .125W TF TC=0+-25	28480	0698-6377
R15	0699-0154	1	RESISTOR 7.2K +-0.1% .125W TF TC=0+-25	28480	0699-0154
R16	0698-3445	1	RESISTOR 348 +-1% .125W TF TC=0+-100	28480	0698-3445
R22	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R23	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R26	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R29	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R30	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R31	0698-7225	1	RESISTOR 348 +-1% .05W TF TC=0+-100	28480	0698-7225
TP1	1251-0600	1	CONNECTOR-SGL CONT PIN 1.14-MM-BSC-SZ SQ	01136	928-196-004140
TP5	1251-0600	1	CONNECTOR-SGL CONT PIN 1.14-MM-BSC-SZ SQ	01136	928-196-004140
U1	1826-0558	1	IC PWR MGT-V-REG-ADJ-NEG 1.2/37V TO-39	28480	1826-0558
U2	1826-1431	1	IC PWR MGT-V-REF-FXD 4.9975/5.0025V 8	28480	1826-1431
U3	1826-1135	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1135
U4	1826-1998	1	ANALOG MULTIPLEXER 4 CHNL 18 -DIP-P	28480	1826-1998
U5	1826-2011	1	IC OP AMP WB 8 PIN DIP-P	28480	1826-2011
U6	1826-1731	1	A/D 8-BIT 24-CERDIP BPLR	28480	1826-1731
U7	1820-3695	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U8	1820-3456	1	IC DRVR CMOS/HCT BUS OCTL	28480	1820-3456
U9	1820-3590	1	IC GATE TTL/AS OR QUAD 2-INP	28480	1820-3590
U10	1820-2899	1	IC COMPTR TTL/AS MAGTD 8-BIT	28480	1820-2899
U11	1820-4652	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-4652
U12	1820-2899	1	IC COMPTR TTL/AS MAGTD 8-BIT	28480	1820-2899
U13	1818-4130	1	IC 64K-BIT-SRAM 20-NS CMOS	28480	1818-4130
U14	1818-4130	1	IC 64K-BIT SRAM 20-NS CMOS	28480	1818-4130

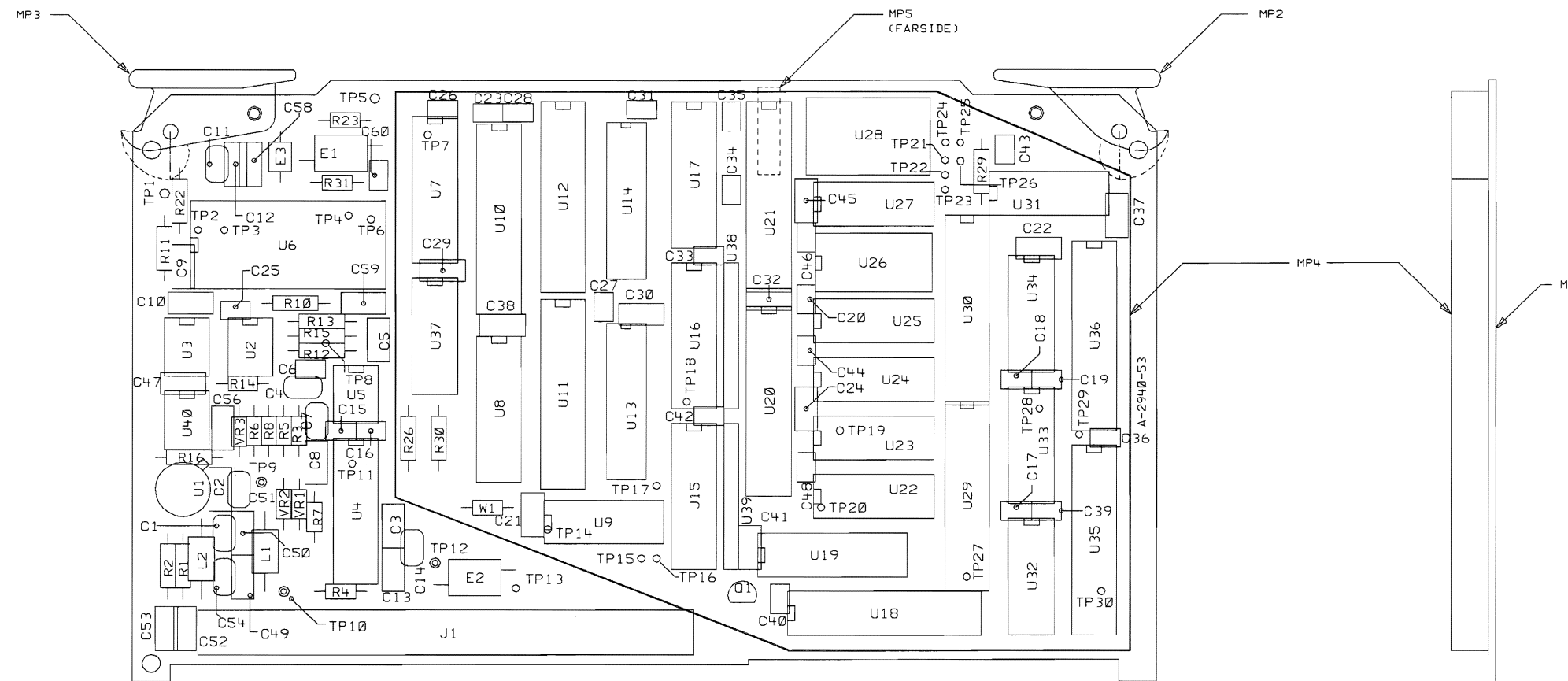
\*Indicates factory-selected value

CLIP 5958-7174 3

**HP Part Number 5062-7079  
Fast ADC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U15	5181-5016	1	PAL-PRGMD U15	28480	5181-5016
U16	1820-3695	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U17	1820-3695	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U18	1821-0131	1	IC FF BICMOS/ABT D-TYPE POS-EDGE-TRIG	28480	1821-0131
U19	1820-3695	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG COM	28480	1820-3695
U20	1820-4125	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U21	1820-4125	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U22	1820-3735	1	IC FF TTL/AS J-K BAR POS-EDGE-TRIG	28480	1820-3735
U23	1820-3591	1	IC GATE TTL/AS NAND QUAD 2-INP	28480	1820-3591
U24	1820-2696	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG COM CLK	28480	1820-2696
U25	1820-3732	1	IC GATE TTL/AS AND TPL 3-INP	28480	1820-3732
U26	1810-0960	1	DELAY LINE ACTIVE DEVICE W/DUAL IN-LINE	28480	1810-0960
U27	1820-3747	1	IC MUXR/DATA-SEL TTL/AS 4-TO-1-LINE DUAL	28480	1820-3747
U28	1813-0119	1	CLK-OSC-XTAL STD 40.0-MHZ 0.01%	28480	1813-0119
U29	1820-4535	1	IC LCH TTL/ALS TRANSPARENT 10-BIT	28480	1820-4535
U30	1820-4125	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U31	1820-3493	1	IC FF TTL/AS D-TYPE POS-EDGE-TRIG	28480	1820-3493
U32	1820-3335	1	IC GATE TTL/ALS NAND QUAD 2-INP	28480	1820-3335
U33	1820-3729	1	IC GATE TTL/AS NOR QUAD 2-INP	28480	1820-3729
U34	1820-2696	1	IC FF TTL/F D-TYPE POS-EDGE-TRIG COM CLK	28480	1820-2696
U35	1820-4125	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U36	1820-4125	1	IC CNTR TTL/F BIN UP/DOWN SYNCHRO	28480	1820-4125
U37	1820-3732	1	IC GATE TTL/AS AND TPL 3-INP	28480	1820-3732
U38	1810-0279	1	NETWORK-RES 10-SIP 4.7K OHM X 9	28480	1810-0279
U39	1810-0270	1	NETWORK-RES 10-SIP 680.0 OHM X 9	28480	1810-0270
U40	1826-1135	1	IC OP AMP PRCN 8 PIN DIP-C	28480	1826-1135
VR1	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
VR2	1902-0554	1	DIODE-ZNR 10V 5% PD=1W IR=10UA	28480	1902-0554
VR3	1902-0950	1	DIODE-ZNR 4.7V 5% DO-35 PD=.4W TC=+.025%	28480	1902-0950
W1	8159-0005	1	RESISTOR 0 CWM	28480	8159-0005

5300		D-5062-7079-2	
REVISIONS		APPROVED	DATE
SYM	REV'D & REDRAWN: ESP TO EEDP		
B	M/L CHANGE PCO 5300-00079 DM		



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. REMOVE TABS AFTER WAVE SOLDER.
3. MAXIMUM COMPONENT HEIGHT .503.
4. MAXIMUM LEAD TRIM LENGTH .118.
5. CHECK FOR MODIFICATIONS IN THE P.C. LINE ASSEMBLY DOCUMENTATION MANUAL A-5062-A101.

SEE 5062-7079 MATERIAL LIST

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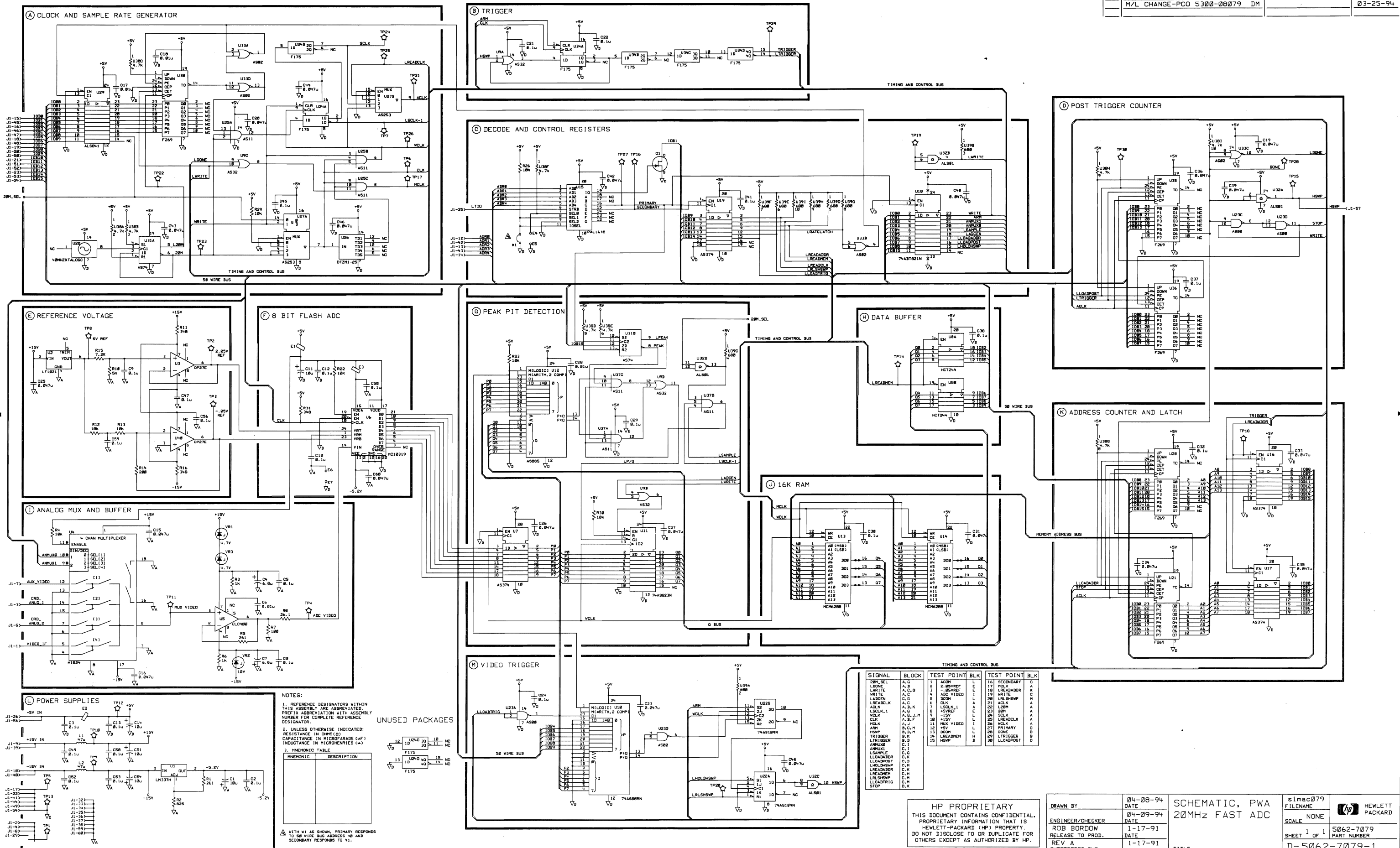
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
20MHz FAST ADC

TITLE

alimac079 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 of 1	5062-7079 PART NUMBER
D-5062-7079-2	



NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICROHENRIES (μH).  
 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION

▲ WITH W1 AS SHOWN, PRIMARY RESPONDS TO SB WIRE BUS ADDRESS #8 AND SECONDARY RESPONDS TO #1.

TIMING AND CONTROL BUS

SIGNAL	BLOCK	TEST POINT	BLK	TEST POINT	BLK
20M_SEL	A, D	3	AGDM	L	14
LOADEN	A, D, G	2	-BSVREF	E	17
WRITE	A, C, D	1	ASC_VIDED	E	18
LADEN	C, D	4	CLK	L	20
LOADEN	C, D	5	DOOM	L	20
LREADCLK	A, C, K	6	LSCLK_1	E	22
CLK	A, C, D, H	7	+SVREF	L	23
CLK	A, E, F	10	+15V	L	24
TRIGGER	B, C, H	11	MUX_VIDED	L	25
TRIGGER	B, K	12	+5V	L	27
TRIGGER	B, D	13	DOOM	L	28
TRIGGER	B, K	14	LREADEN	H	29
TRIGGER	C, I	15	HWP	D	30
TRIGGER	C, I	16	LREADEN	H	29
TRIGGER	C, I	17	LLOADPOST	D	30
TRIGGER	C, I	18	LLOADEN	H	29
TRIGGER	C, I	19	LREADEN	H	29
TRIGGER	C, I	20	LLOADEN	H	29
TRIGGER	C, I	21	LLOADEN	H	29
TRIGGER	C, I	22	LLOADEN	H	29
TRIGGER	C, I	23	LLOADEN	H	29
TRIGGER	C, I	24	LLOADEN	H	29
TRIGGER	C, I	25	LLOADEN	H	29
TRIGGER	C, I	26	LLOADEN	H	29
TRIGGER	C, I	27	LLOADEN	H	29
TRIGGER	C, I	28	LLOADEN	H	29
TRIGGER	C, I	29	LLOADEN	H	29
TRIGGER	C, I	30	LLOADEN	H	29

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DRAWN BY	04-08-94	SCHEMATIC, PWA	simac079
ENGINEER/CHECKER	04-09-94	20MHz FAST ADC	FILENAME
ROB BORDOW	DATE		SCALE NONE
RELEASE TO PROD.	1-17-91		SHEET 1 OF 1
REV A	DATE		5062-7079
SUPERSEDES DWG.	1-17-91		PART NUMBER
		TITLE	D-5062-7079-1

# **Component-Level Information Packet for 5062-1982**

## **Demod/TV SYNC**



**HP Part No. 5958-7055  
Printed in USA August 1995**

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**HP Part Number 5062-1982  
Demod/TV SYNC**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	1	CAP-FXD 5.6pF +-8.92% 100 V CER C0G	28480	0160-4794
C2	0160-4807	1	CAP-FXD 33pF +-5% 100 V CER C0G	28480	0160-4807
C3	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C4	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C5	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C6	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C7	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C8	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C9	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C10	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C11	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C12	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C13	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C14	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C15	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C16	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C17	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C18	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C19	0160-5404	1	CAP-FXD 360pF +-5% 100 V CER C0G	28480	0160-5404
C20	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C21	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C22	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C23	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C24	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C25	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C26	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C27	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C28	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C29	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C30	0160-4385	1	CAP-FXD 15pF +-5% 200 V CER C0G	28480	0160-4385
C31	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C32	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C33	0180-4214	1	CAP-FXD 220uF +-10% 10 V TA	28480	0180-4214
C35	0160-6588	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C36	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422

\*Indicates factory-selected value

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**HP Part Number 5062-1982  
Demod/TV SYNC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C38	0160-5098	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	28480	0160-5098
C39	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C40	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C41	0160-6146	1	CAP-FXD 910pF +-5% 100 V CER C0G	28480	0160-6146
C42	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C43	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C44	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C45	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C46	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C47	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C48	0160-4810	1	CAP-FXD 330pF +-5% 100 V CER C0G	28480	0160-4810
C49	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C50	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C51	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C52	0160-4371	1	CAP-FXD 680pF +-5% 100 V CER C0G	28480	0160-4371
C53	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C54	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C100	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C101	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C103	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C104	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C105	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C109	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C111	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C112	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C113	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C114	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C115	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR5	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR100	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

**HP Part Number 5062-1982  
Demod/TV SYNC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR103	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
E1	9170-1380	1	CORE-SHIELDING BEAD	28480	9170-1380
E2	9170-1380	1	CORE-SHIELDING BEAD	28480	9170-1380
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1250-0543	1	CONNECTOR-RF SMB PLUG PC-W-STDFS 50-OHM	28480	1250-0543
L1	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L2	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L3	9140-0237	1	INDUCTOR RF-CH-MLD 200uH +-5%	28480	9140-0237
L4	9100-2547	1	INDUCTOR RF-CH-MLD 5.6UH +-10%	28480	9100-2547
L5	9100-2547	1	INDUCTOR RF-CH-MLD 5.6UH +-10%	28480	9100-2547
L6	9100-2562	1	INDUCTOR RF-CH-MLD 100UH +-10%	28480	9100-2562
L7	9100-2564	1	INDUCTOR RF-CH-MLD 150UH +-10%	28480	9100-2564
MP2	7100-1316	1	CAN-SQ	01932	HU 4280-.437 + TABS
MP3	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	7100-1317	1	CAN-SQ	01932	HU 4532-.437 + TABS
MP6	0403-0627	1	EXTR-PC BD RED NYL .062-IN-BD-THKNS	02123	91-2-RED-1
P3	1252-1882	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1882
P4	1252-2195	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2195
P5	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
Q1	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	28480	1854-0215
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	28480	1855-0420
Q4	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q100	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R2	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R3	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R4	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R6	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R7	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R8	0698-7204	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0698-7204
R9	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R10	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R11	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R12	0698-8820	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	28480	0698-8820

\*Indicates factory-selected value

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**HP Part Number 5062-1982  
Demod/TV SYNC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R13	0698-6320	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	28480	0698-6320
R14	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R15	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R16	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R17	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R18	0699-0692	1	RESISTOR 1.4K +-0.1% .125W TF TC=0+-25	28480	0699-0692
R19	0698-6963	1	RESISTOR 5.55K +-0.1% .125W TF TC=0+-25	28480	0698-6963
R20	0698-6533	1	RESISTOR 12.5K +-0.1% .125W TF TC=0+-25	28480	0698-6533
R21	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R22	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R25	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R27	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R28	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R29	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R30	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R31	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R32	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R33	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R34	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R35	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R36	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R37	0698-8816	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	28480	0698-8816
R38	0698-7286	1	RESISTOR 121K +-1% .05W TF TC=0+-100	28480	0698-7286
R39	0698-7288	1	RESISTOR 147K +-1% .05W TF TC=0+-100	28480	0698-7288
R40	0698-8826	1	RESISTOR 825K +-1% .125W TF TC=0+-100	28480	0698-8826
R41	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R42	0699-0400	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	28480	0699-0400
R43	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R44	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R45	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R46	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R47	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R48	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R49	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R50	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236

**HP Part Number 5062-1982  
Demod/TV SYNC (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R51	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R52	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R53	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R54	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R55	0698-3458	1	RESISTOR 348K +-1% .125W TF TC=0+-100	28480	0698-3458
R200	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R203	0698-8825	1	RESISTOR 681K +-1% .125W TF TC=0+-100	28480	0698-8825
R204	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R205	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R206	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R207	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
U1	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0547
U2	1826-1913	1	IC OSC DBL-BAL 8 PIN DIP-P	28480	1826-1913
U3	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U4	1820-6408	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U5	1826-1431	1	IC PWR MGT-V-REF-FXD 4.9975/5.0025V 8	28480	1826-1431
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U8	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U9	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U10	1826-0682	1	IC AUDIO AMPL PWR 8 PIN DIP-P	28480	1826-0682
U11	1826-2026	1	ANALOG SWITCH SPST 8 -DIP-P	28480	1826-2026
U12	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U100	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U101	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U102	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U103	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U105	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U106	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U107	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U108	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U109	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U110	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U111	1820-3672	1	IC MUXR/DATA-SEL CMOS/HC 4-TO-1-LINE	28480	1820-3672
U112	1820-3185	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185

\*Indicates factory-selected value

CLIP 5958-7055 5

**HP Part Number 5062-1982  
Demod/TV SYNC (continued)**

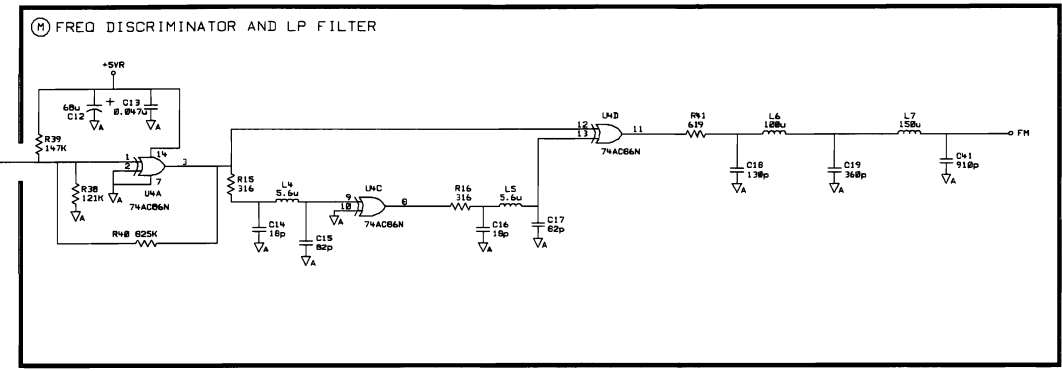
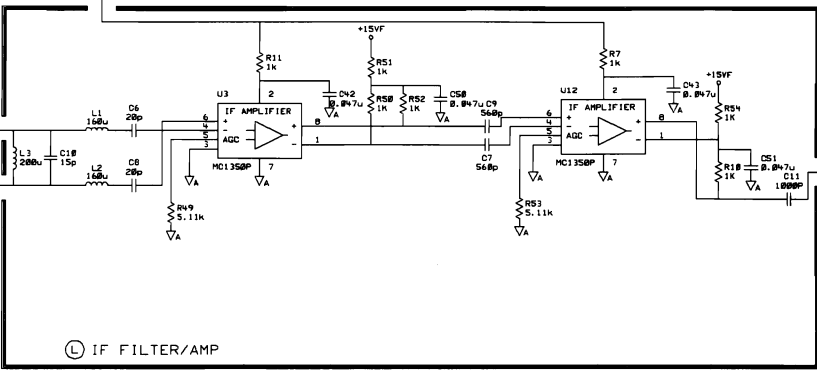
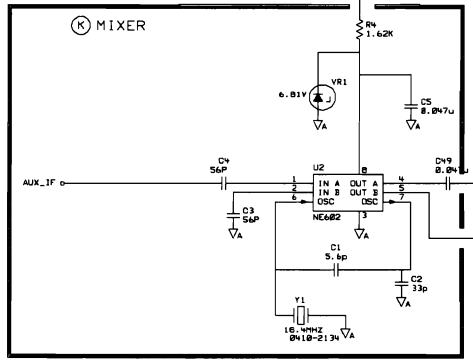
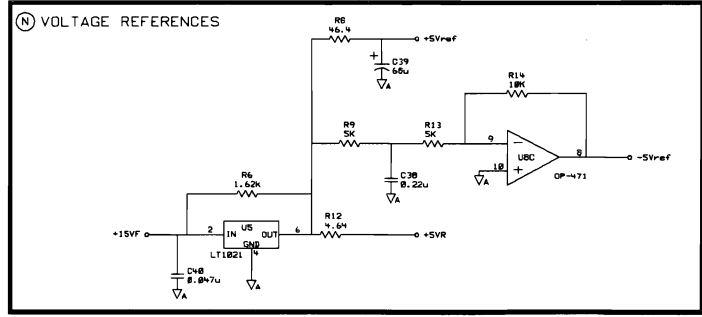
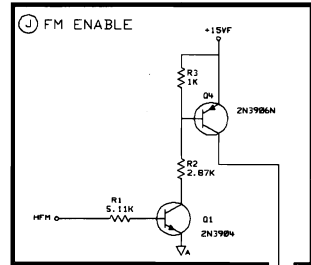
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U113	1826-1942	1	IC MISC 8 PIN DIP-P	28480	1826-1942
U114	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U115	1820-3183	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-3183
U116	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
VR1	1902-0048	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
VR2	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
Y1	0410-2134	1	CRYSTAL-QUARTZ 18.432	28480	0410-2134

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Artek Media**

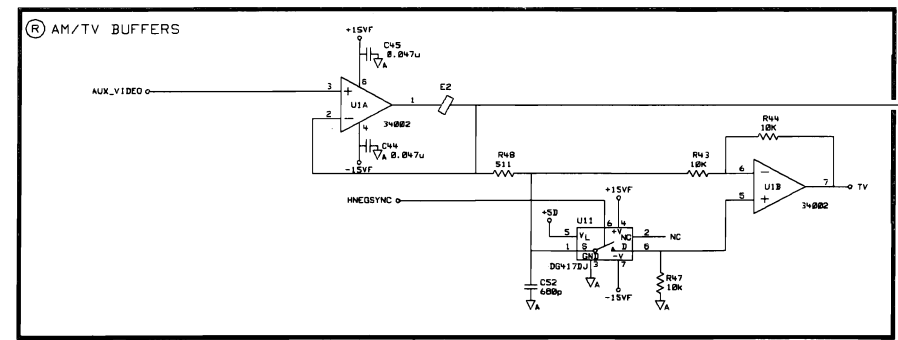
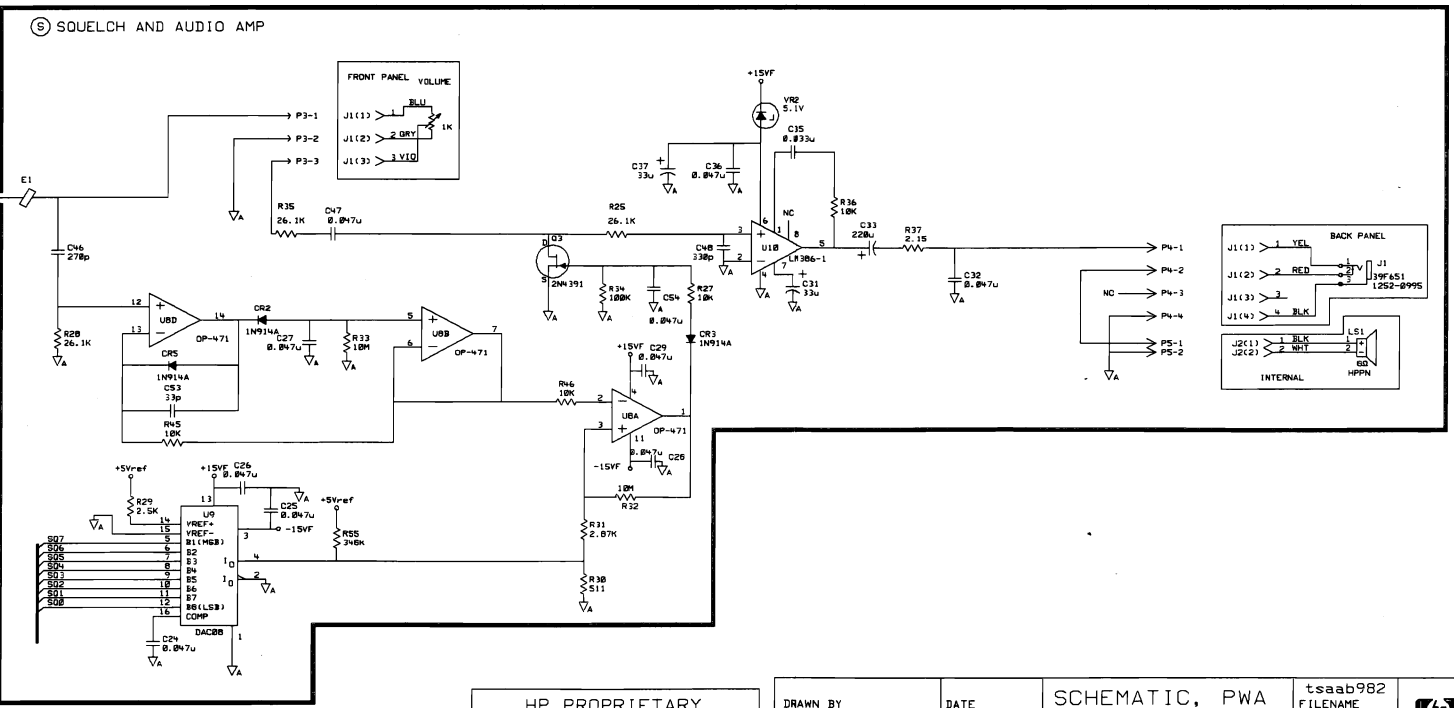
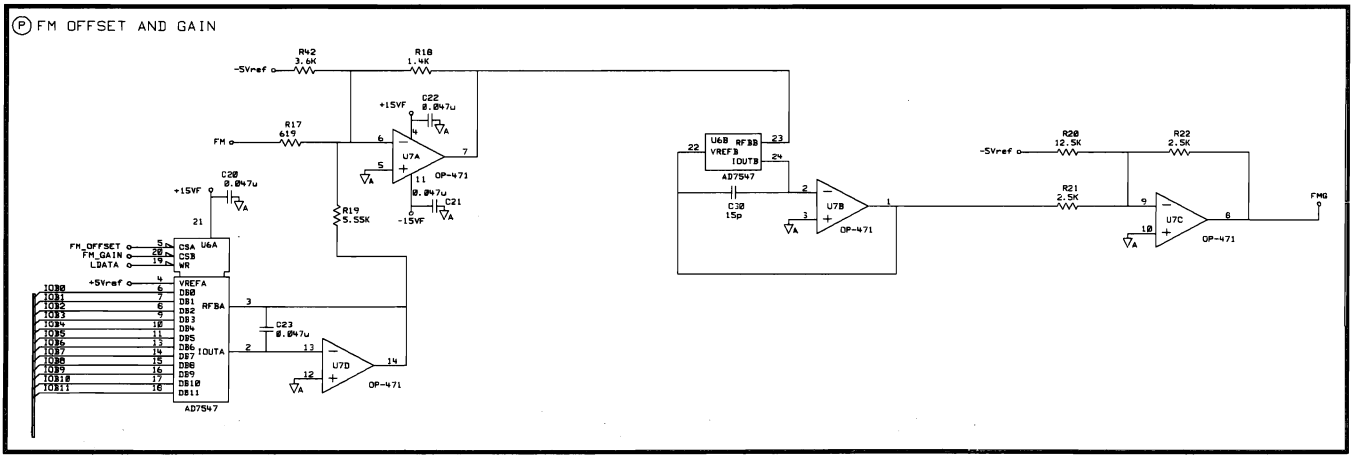






NOTES:  
 1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.  
 2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω), CAPACITANCE IN MICROFARADS (μF), INDUCTANCE IN MICROHENRIES (μH)  
 3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION



NOT USED: R5, R23, R24, R26, C1, C2, C22  
 LAST USED: C54, U12, R55, C15, L7, VR2

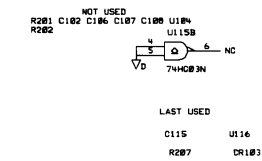
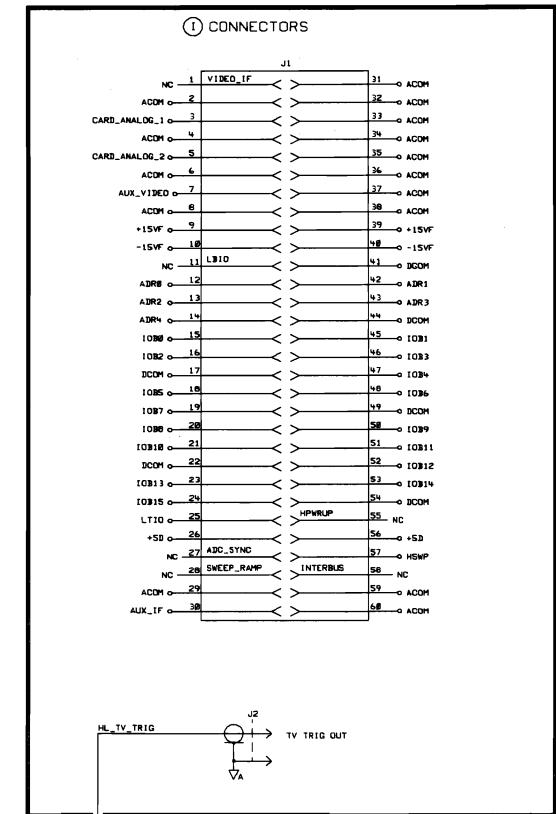
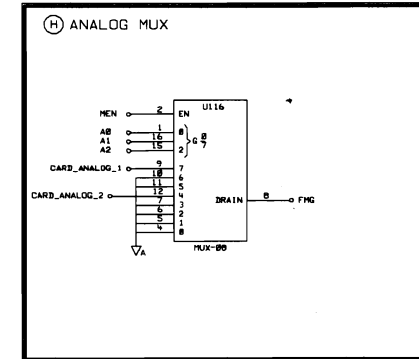
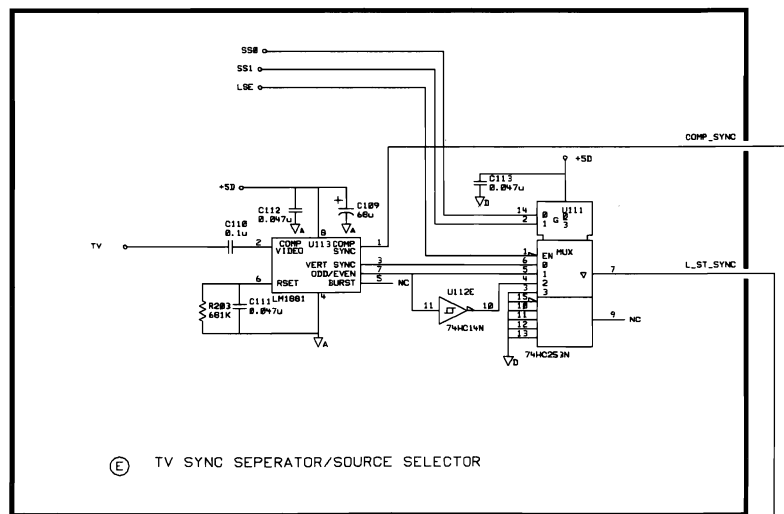
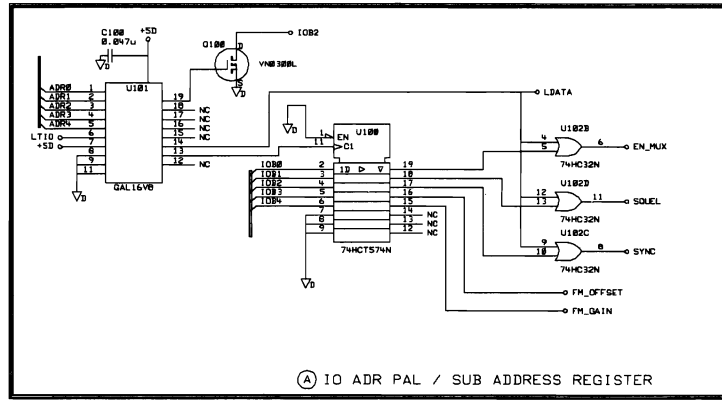
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 ENGINEER/CHECKER \_\_\_\_\_ DATE \_\_\_\_\_  
 RELEASE TO PROD. \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERSEDES DNG. \_\_\_\_\_

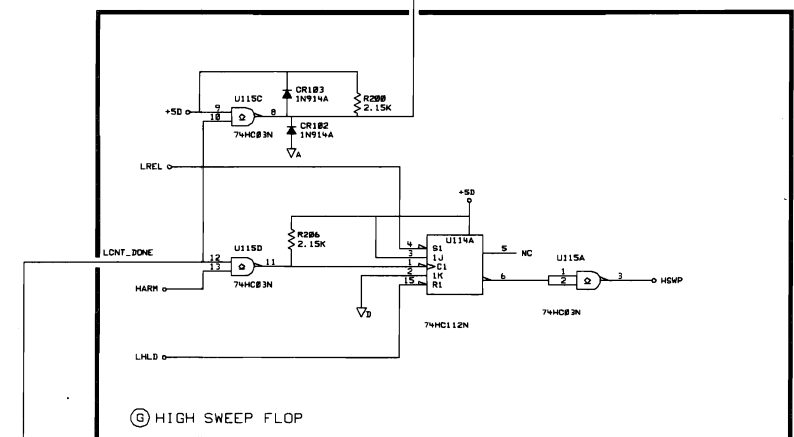
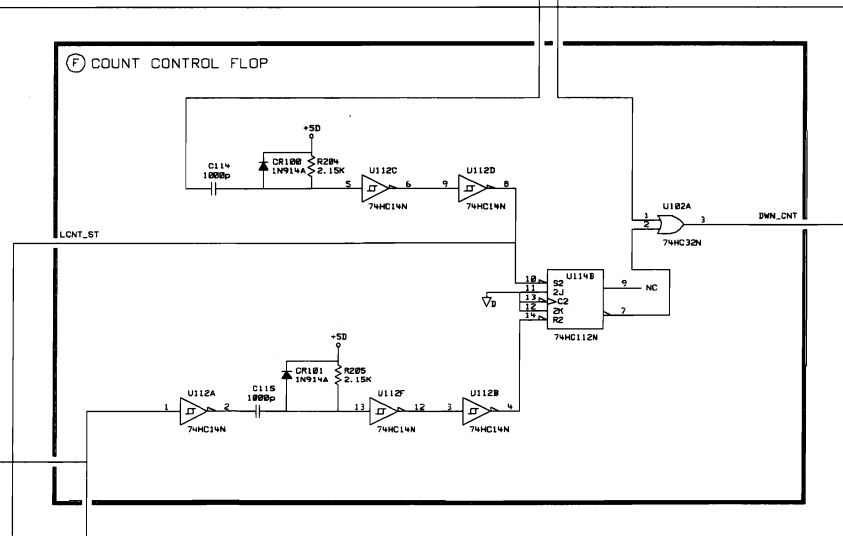
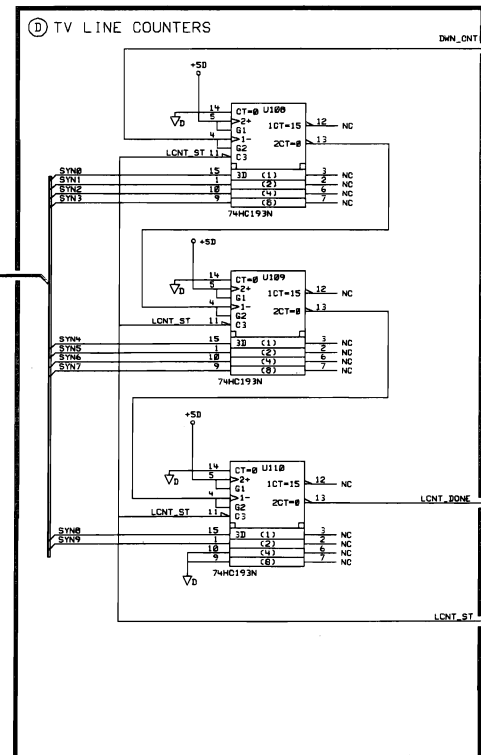
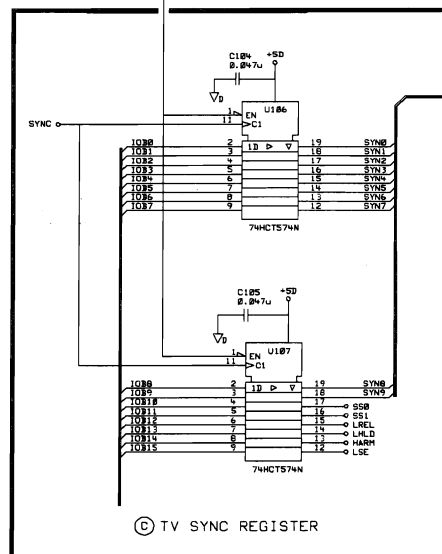
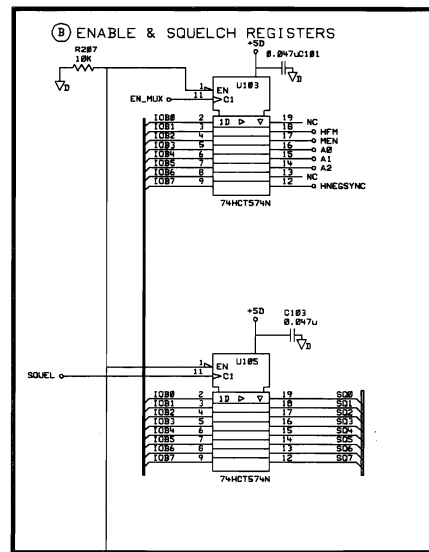
SCHEMATIC, PWA  
 DMOD AND TV  
 LINE TRIG

tssaab982  
 FILENAME  
 SCALE NONE  
 SHEET 1 OF 2  
 5062-1982  
 PART NUMBER  
 D-5062-1982-1

S300 A2908		D-5062-1982-1	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		5/26/88
B	PER PCO 53-06247		3/15/90
C	PER PCO 53-06602		6/14/90



# TV LINE TRIGGER



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DRAWN BY	DATE	05/26/88
ENGINEER/CHECKER	DATE	05/26/88
RELEASE TO PROD.	DATE	04/23/90
SUPERSEDES DWG.		

SCHMATIC, PWA	s2mac982	FILENAME	HEWLETT
DMOD AND TV	SCALE NONE		PACKARD
LINE TRIG	SHEET 2 OF 2	5062-1982	
		PART NUMBER	
		D-5062-1982-1	

# **Component-Level Information Packet for 5062-1983**

## **Demod/QPD**



**HP Part No. 5960-2504  
Printed in USA June 1997**

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**HP Part Number 5062-1983  
Demod/QPD**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	1	CAP-FXD 5.6pF +-8.92% 100 V CER C0G	28480	0160-4794
C2	0160-4807	1	CAP-FXD 33pF +-5% 100 V CER C0G	28480	0160-4807
C3	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C4	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C5	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C6	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C7	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C8	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C9	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C10	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C11	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C12	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C13	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C14	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C15	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C16	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C17	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C18	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C19	0160-5404	1	CAP-FXD 360pF +-5% 100 V CER C0G	28480	0160-5404
C20	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C21	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C22	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C23	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C24	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C25	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C26	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C27	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C28	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C29	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C30	0160-4385	1	CAP-FXD 15pF +-5% 200 V CER C0G	28480	0160-4385
C31	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C32	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C33	0180-4214	1	CAP-FXD 220uF +-10% 10 V TA	28480	0180-4214
C35	0160-6588	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C36	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422

\*Indicates factory-selected value

CLIP 5960-2504 1

**HP Part Number 5062-1983**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C38	0160-5098	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	28480	0160-5098
C39	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C40	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C41	0160-6146	1	CAP-FXD 910pF +-5% 100 V CER C0G	28480	0160-6146
C42	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C43	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C44	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C45	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C46	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C47	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C48	0160-4810	1	CAP-FXD 330pF +-5% 100 V CER C0G	28480	0160-4810
C49	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C50	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C51	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C53	0160-4807	1	CAP-FXD 33pF +-5% 100 V CER C0G	28480	0160-4807
C54	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C55	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C56	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C100	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C101	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C104	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C105	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C106	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C107	0160-4805	1	CAP-FXD 47pF +-5% 100 V CER C0G	28480	0160-4805
C108	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C109	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C110	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C111	0180-4132	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4132
C116	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C117	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
C118	0180-3769	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-3769
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR5	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2

**HP Part Number 5062-1983  
Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR101	1901-1098	1	DIODE-SWITCHING 1N4150 50V 200MA 4NS	02237	1N4150
CR102	1901-0376	1	DIODE-GEN PRP 35V 50MA DO-35	28480	1901-0376
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
L1	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L2	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L3	9140-0237	1	INDUCTOR RF-CH-MLD 200uH +-5%	28480	9140-0237
L4	9100-2547	1	INDUCTOR RF-CH-MLD 5.6uH +-10%	28480	9100-2547
L5	9100-2547	1	INDUCTOR RF-CH-MLD 5.6uH +-10%	28480	9100-2547
L6	9100-2562	1	INDUCTOR RF-CH-MLD 100uH +-10%	28480	9100-2562
L7	9100-2564	1	INDUCTOR RF-CH-MLD 150uH +-10%	28480	9100-2564
L100	85650-80004	1	INDUCTOR 8.25 UH	28480	85650-80004
L101	9100-2574	1	INDUCTOR RF-CH-MLD 1.2mH +-10%	28480	9100-2574
MP2	7100-1316	1	CAN-SQ	01932	HU 4280-.437 + TABS
MP3	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	7100-1317	1	CAN-SQ	01932	HU 4532-.437 + TABS
MP6	0403-0628	1	EXTR-PC BD ORN NYL .062-IN-BD-THKNS	02123	91-2-ORANGE-6
P3	1252-1882	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1882
P4	1252-2195	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2195
P5	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
Q1	1854-0215	1	TRANSISTOR NPN SI TO-92 PD=625MW	02237	2N3904
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q4	1853-0036	1	TRANSISTOR PNP SI TO-92 PD=625MW	28480	1853-0036
Q100	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
Q101	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R2	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R3	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R4	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R6	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R7	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R8	0698-7204	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0698-7204
R9	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R10	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R11	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R12	0698-8820	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	28480	0698-8820

*\*Indicates factory-selected value*

**CLIP 5960-2504 3**

**HP Part Number 5062-1983**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R13	0698-6320	1	RESISTOR 5K +0.1% .125W TF TC=0+-25	28480	0698-6320
R14	0698-6360	1	RESISTOR 10K +0.1% .125W TF TC=0+-25	28480	0698-6360
R15	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R16	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R17	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R18	0699-0692	1	RESISTOR 1.4K +-0.1% .125W TF TC=0+-25	28480	0699-0692
R19	0698-6963	1	RESISTOR 5.55K +-0.1% .125W TF TC=0+-25	28480	0698-6963
R20	0698-6533	1	RESISTOR 12.5K +-0.1% .125W TF TC=0+-25	28480	0698-6533
R21	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R22	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R25	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R27	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R28	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R29	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R30	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R31	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R32	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R33	0698-8827	1	RESISTOR 1M +-1% .125W TF TC=0+-100	28480	0698-8827
R34	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R35	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R36	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R37	0698-8816	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	28480	0698-8816
R38	0698-7286	1	RESISTOR 121K +-1% .05W TF TC=0+-100	28480	0698-7286
R39	0698-7288	1	RESISTOR 147K +-1% .05W TF TC=0+-100	28480	0698-7288
R40	0698-8826	1	RESISTOR 825K +-1% .125W TF TC=0+-100	28480	0698-8826
R41	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R42	0699-0400	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	28480	0699-0400
R45	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R46	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R49	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R50	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R51	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R52	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R53	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R54	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236



**HP Part Number 5062-1983  
Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R55	0698-3458	1	RESISTOR 348K +-1% .125W TF TC=0+-100	28480	0698-3458
R100	0698-7243	1	RESISTOR 1.96K +-1% .05W TF TC=0+-100	28480	0698-7243
R101	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R102	0698-7209	1	RESISTOR 75 +-1% .05W TF TC=0+-100	28480	0698-7209
R103	0698-7268	1	RESISTOR 21.5K +-1% .05W TF TC=0+-100	28480	0698-7268
R104	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R105	0698-7275	1	RESISTOR 42.2K +-1% .05W TF TC=0+-100	28480	0698-7275
R106	0698-7250	1	RESISTOR 3.83K +-1% .05W TF TC=0+-100	28480	0698-7250
R107	0699-0981	1	RESISTOR 20.5K +-1% .05W TF TC=0+-100	28480	0699-0981
R109	0698-7277	1	RESISTOR 51.1K +-1% .05W TF TC=0+-100	28480	0698-7277
R110	0698-7212	1	RESISTOR 100 +-1% .05W TF TC=0+-100	28480	0698-7212
R111	0698-7211	1	RESISTOR 90.9 +-1% .05W TF TC=0+-100	28480	0698-7211
R112	0698-8711	1	RESISTOR 6.601K +-0.1% .125W TF TC=0+-25	28480	0698-8711
R114	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R115	0698-7237	1	RESISTOR 1.1K +-1% .05W TF TC=0+-100	28480	0698-7237
R116	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R117	0698-7259	1	RESISTOR 9.09K +-1% .05W TF TC=0+-100	28480	0698-7259
R118	0698-7262	1	RESISTOR 12.1K +-1% .05W TF TC=0+-100	28480	0698-7262
R119	0698-7272	1	RESISTOR 31.6K +-1% .05W TF TC=0+-100	28480	0698-7272
R120	0698-7278	1	RESISTOR 56.2K +-1% .05W TF TC=0+-100	28480	0698-7278
R121	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R122	0698-7206	1	RESISTOR 56.2 +-1% .05W TF TC=0+-100	28480	0698-7206
R123	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
U1	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0547
U2	1826-1913	1	IC OSC DBL-BAL 8 PIN DIP-P	28480	1826-1913
U3	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U4	1820-6408	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U5	1826-1431	1	IC PWR MGT-V-REF-FXD 4.9975/5.0025V 8	28480	1826-1431
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U8	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U9	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U10	1826-0682	1	IC AUDIO AMPL PWR 8 PIN DIP-P	28480	1826-0682
U12	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U13	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16 -CERDIP	28480	1826-0610

*\*Indicates factory-selected value*

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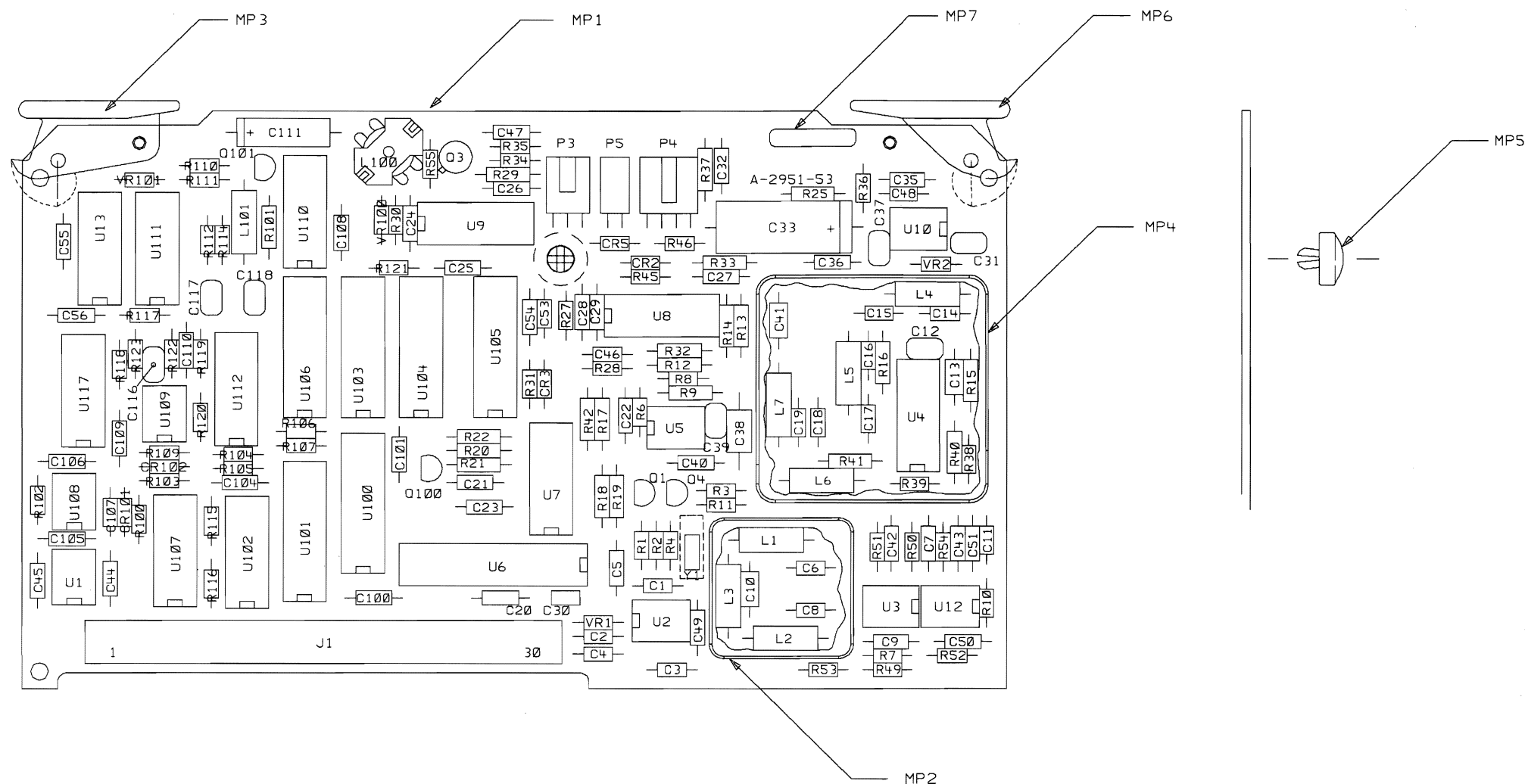
**HP Part Number 5062-1983  
Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U100	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U101	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U102	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U103	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U104	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U105	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U106	1820-3789	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-3789
U107	1826-1086	1	ANALOG SWITCH 4 SPST 16 -DIP-P	28480	1826-1086
U108	1826-1845	1	IC OP AMP PRCN DUAL 8 PIN DIP-P	28480	1826-1845
U109	1826-1969	1	IC OP AMP LOW-DRIFT DUAL 8 PIN DIP-C	28480	1826-1969
U110	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U111	1826-0720	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0720
U112	1826-0720	1	ANALOG SWITCH 4 SPST 16 -CERDIP	28480	1826-0720
U117	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
VR1	1902-0048	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
VR2	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
VR100	1902-0957	1	DIODE-ZNR 1N5239B 9.1V 5% DO-35 PD=.4W	28480	1902-0957
VR101	1902-0957	1	DIODE-ZNR 1N5239B 9.1V 5% DO-35 PD=.4W	28480	1902-0957
Y1	0410-2134	1	CRYSTAL-QUARTZ 18.432	28480	0410-2134

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By  
Artek Media**

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SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-06474		
B	CHANGED PER PCO 53-09269 /DM		



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT 0.450
3. MAXIMUM LEAD TRIM LENGTH 0.065

SEE 5062-1983 MATERIAL LIST  
RAW BOARD NUMBER 5021-8691

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                  XX.XX ±.02  
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PROJECTION  
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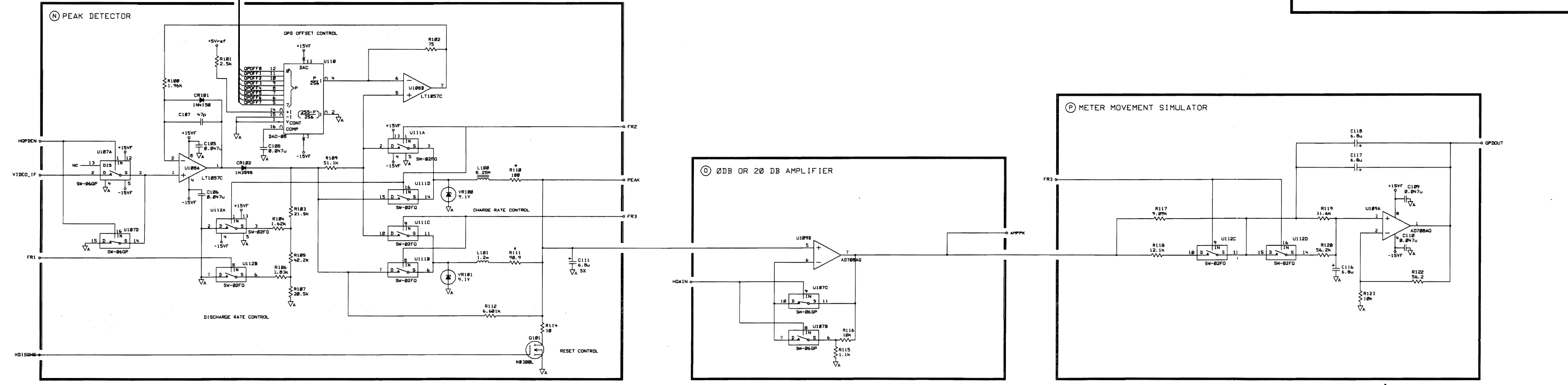
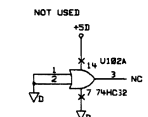
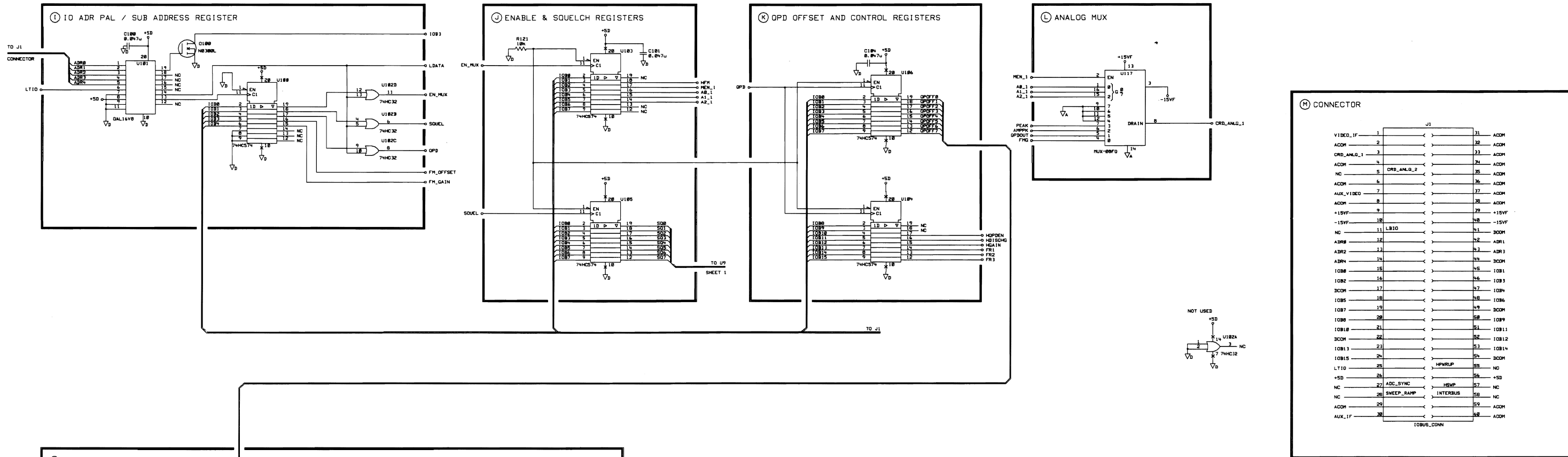
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SCALE NONE	
SHEET 1 of 1	5062-1983 PART NUMBER
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S2mac983 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	5062-1983 PART NUMBER
TITLE	D-5062-1983-1

# **Component-Level Information Packet for 85462-60042**

## **Demod/QPD**



**HP Part No. 85462/90010  
Printed in USA June 1997**

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**HP Part Number 85462-60042**  
**Demod/QPD**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-5972	1	CAP-FXD 5.6pF +-8.93% 50 V CER C0G	28480	0160-5972
C2	0160-5959	1	CAP-FXD 33pF +-5% 50 V CER C0G	28480	0160-5959
C3	0160-5956	1	CAP-FXD 56pF +-5% 50 V CER C0G	28480	0160-5956
C4	0160-5956	1	CAP-FXD 56pF +-5% 50 V CER C0G	28480	0160-5956
C5	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C6	0160-7217	1	CAP-FXD 20pF +-5% 50 V CER C0G	28480	0160-7217
C7	0160-6097	1	CAP-FXD 560pF +-5% 50 V CER C0G	28480	0160-6097
C8	0160-7217	1	CAP-FXD 20pF +-5% 50 V CER C0G	28480	0160-7217
C9	0160-6097	1	CAP-FXD 560pF +-5% 50 V CER C0G	28480	0160-6097
C10	0160-5962	1	CAP-FXD 15pF +-5% 50 V CER C0G	28480	0160-5962
C11	0160-6100	1	CAP-FXD 1000pF +-5% 50 V CER C0G	28480	0160-6100
C12	0180-4228	1	CAP-FXD 47uF +-20% 10 V TA	28480	0180-4228
C13	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C14	0160-5963	1	CAP-FXD 18pF +-5% 50 V CER C0G	28480	0160-5963
C15	0160-5968	1	CAP-FXD 82pF +-5% 50 V CER C0G	28480	0160-5968
C16	0160-5963	1	CAP-FXD 18pF +-5% 50 V CER C0G	28480	0160-5963
C17	0160-5968	1	CAP-FXD 82pF +-5% 50 V CER C0G	28480	0160-5968
C18	0160-7385	1	CAP-FXD 130pF +-5% 50 V CER C0G	28480	0160-7385
C19	0160-7390	1	CAP-FXD 360pF +-5% 50 V CER C0G	28480	0160-7390
C20	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C21	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C22	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C23	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C24	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C25	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C26	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C27	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C28	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C29	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C30	0160-5962	1	CAP-FXD 15pF +-5% 50 V CER C0G	28480	0160-5962
C31	0180-4116	1	CAP-FXD 22uF +-20% 20 V TA	28480	0180-4116
C32	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C33	0180-4207	1	CAP-FXD 220uF +-10% 10 V TA	28480	0180-4207
C35	0160-6727	1	CAP-FXD 0.033uF +-10% 50 V CER X7R	28480	0160-6727
C36	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734

\*Indicates factory-selected value

CLIP 85462/90010 1

**HP Part Number 85462-60042  
Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0180-4116	1	CAP-FXD 22uF +-20% 20 V TA	28480	0180-4116
C38	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C39	0180-4228	1	CAP-FXD 47uF +-20% 10 V TA	28480	0180-4228
C40	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C41	0160-6099	1	CAP-FXD 820pF +-5% 50 V CER C0G	28480	0160-6099
C42	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C43	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C44	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C45	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C46	0160-5953	1	CAP-FXD 270pF +-5% 50 V CER C0G	28480	0160-5953
C47	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C48	0160-5952	1	CAP-FXD 330pF +-5% 50 V CER C0G	28480	0160-5952
C49	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C50	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C51	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C52	0160-7382	1	CAP-FXD 91pF +-5% 50 V CER C0G	28480	0160-7382
C53	0160-5959	1	CAP-FXD 33pF +-5% 50 V CER C0G	28480	0160-5959
C54	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C55	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C56	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C60	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C61	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C100	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C101	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C104	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C105	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C106	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C107	0160-5967	1	CAP-FXD 100pF +-5% 50 V CER C0G	28480	0160-5967
C108	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C109	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C110	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C111	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
C112	0180-4116	1	CAP-FXD 22uF +-20% 20 V TA	28480	0180-4116
C116	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
C117	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470

**HP Part Number 85462-60042  
Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C118	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
C120	0160-6222	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6222
C200	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
C201	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
C202	0180-4470	1	CAP-FXD 6.8uF +-10% 35 V TA	28480	0180-4470
CR1	1901-1227	1	DIODE-SWITCHING 75V 200MA 6NS TO-236	02237	BAS16
CR2	1901-1227	1	DIODE-SWITCHING 75V 200MA 6NS TO-236	02237	BAS16
CR3	1901-1227	1	DIODE-SWITCHING 75V 200MA 6NS TO-236	02237	BAS16
CR4	1901-0880	1	DIODE-GEN PRP 200MA DO-35	02237	1MD2
CR5	1901-1227	1	DIODE-SWITCHING 75V 200MA 6NS TO-236	02237	BAS16
CR6	1901-0880	1	DIODE-GEN PRP 200MA DO-35	02237	1MD2
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
J3	1252-1882	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1882
J4	1252-2195	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2195
J5	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
J6	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
L1	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L2	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +-5%	28480	9100-1640
L3	9140-0237	1	INDUCTOR RF-CH-MLD 200uH +-5%	28480	9140-0237
L4	9140-1110	1	INDUCTOR 5.6uH +-5% 3.4W-mmX4.8LG-mm	28480	9140-1110
L5	9140-1110	1	INDUCTOR 5.6uH +-5% 3.4W-mmX4.8LG-mm	28480	9140-1110
L6	9140-1121	1	INDUCTOR 100uH +-5% 3.4W-mmX4.8LG-mm	28480	9140-1121
L7	9140-1122	1	INDUCTOR 150uH +-5% 3.4W-mmX4.8LG-mm	28480	9140-1122
L8	85650-80004	1	INDUCTOR 8.25 UH	28480	85650-80004
L9	9100-1655	1	INDUCTOR RF-CH-MLD 1.2mH +-5%	28480	9100-1655
MP3	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
MP4	7100-1317	1	CAN-SQ	01932	HU 4532-.437 + TABS
MP6	0403-0628	1	EXTR-PC BD ORN NYL .062-IN-BD-THKNS	02123	91-2-ORANGE-6
MP7	7100-1316	1	CAN-SQ	01932	HU 4280-.437 + TABS
MP13	0410-4288	1	COMPONENT-CRYSTAL INSULATOR-CRYSTAL	28480	0410-4288
Q1	1854-1037	1	TRANSISTOR NPN SI TO-236AA PD=350MW	28480	1854-1037
Q3	1855-0680	1	TRANSISTOR J-FET N-CHAN D-MODE TO-236AA	02237	MMBF4391-HIGH
Q4	1853-0567	1	TRANSISTOR PNP SI SOT-23 (TO-236AB)	28480	1853-0567
Q100	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734

\*Indicates factory-selected value

**HP Part Number 85462-60042**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
Q101	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q102	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q103	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q104	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q105	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q106	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
Q107	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
R1	0699-1385	1	RESISTOR 5.11K +-1% .125W TKF TC=0+-100	28480	0699-1385
R2	0699-1379	1	RESISTOR 2.87K +-1% .125W TKF TC=0+-100	28480	0699-1379
R3	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R4	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	28480	0699-1904
R6	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	28480	0699-1904
R7	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R8	0699-1360	1	RESISTOR 46.4 +-1% .125W TKF TC=0+-100	28480	0699-1360
R9	0699-2846	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0699-2846
R10	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R11	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R12	0699-2889	1	RESISTOR 4.7 +-5% .125W TKF TC=0+-500	28480	0699-2889
R13	0699-2846	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0699-2846
R14	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0699-2489
R15	0699-1427	1	RESISTOR 316 +-1% .125W TKF TC=0+-100	28480	0699-1427
R16	0699-1427	1	RESISTOR 316 +-1% .125W TKF TC=0+-100	28480	0699-1427
R17	0699-2827	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0699-2827
R18	0699-2490	1	RESISTOR 1K +-0.1% .125W TF TC=0+-25	28480	0699-2490
R19	0699-2848	1	RESISTOR 18K +-0.1% .125W TF TC=0+-25	28480	0699-2848
R20	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0699-2840
R21	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0699-2840
R22	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0699-2840
R23	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0699-2489
R24	0699-1367	1	RESISTOR 90.9 +-1% .125W TKF TC=0+-100	28480	0699-1367
R25	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	28480	0699-1400
R26	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344
R27	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0699-2489
R28	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	28480	0699-1400
R29	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0699-2840

**HP Part Number 85462-60042**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R30	0699-1432	1	RESISTOR 511 +-1% .125W TKF TC=0+-100	28480	0699-1432
R31	0699-1379	1	RESISTOR 2.87K +-1% .125W TKF TC=0+-100	28480	0699-1379
R32	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R33	0699-1327	1	RESISTOR 1M +-1% .125W TKF TC=0+-100	28480	0699-1327
R34	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	28480	0699-1330
R35	0699-1400	1	RESISTOR 26.1K +-1% .125W TKF TC=0+-100	28480	0699-1400
R36	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R37	0699-2442	1	RESISTOR 2.2 +-5% .125W TKF TC=0+-200	28480	0699-2442
R38	0699-1440	1	RESISTOR 121K +-1% .125W TKF TC=0+-100	28480	0699-1440
R39	0699-1443	1	RESISTOR 147K +-1% .125W TKF TC=0+-100	28480	0699-1443
R40	0699-1460	1	RESISTOR 825K +-1% .125W TKF TC=0+-100	28480	0699-1460
R41	0699-2847	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0699-2847
R42	0699-2483	1	RESISTOR 4K +-0.1% .125W TF TC=0+-25	28480	0699-2483
R43	0699-1330	1	RESISTOR 100K +-1% .125W TKF TC=0+-100	28480	0699-1330
R45	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R46	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R48	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R49	0699-1385	1	RESISTOR 5.11K +-1% .125W TKF TC=0+-100	28480	0699-1385
R50	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R51	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R52	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R53	0699-1385	1	RESISTOR 5.11K +-1% .125W TKF TC=0+-100	28480	0699-1385
R54	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R55	0699-1448	1	RESISTOR 316K +-1% .125W TKF TC=0+-100	28480	0699-1448
R56	0699-2837	1	RESISTOR 30K +-0.1% .125W TF TC=0+-25	28480	0699-2837
R57	0699-2491	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0699-2491
R58	0699-2834	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0699-2834
R59	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R60	0699-1410	1	RESISTOR 61.9K +-1% .125W TKF TC=0+-100	28480	0699-1410
R61	0699-1448	1	RESISTOR 316K +-1% .125W TKF TC=0+-100	28480	0699-1448
R62	0699-2491	1	RESISTOR 20K +-0.1% .125W TF TC=0+-25	28480	0699-2491
R63	0699-2838	1	RESISTOR 40K +-0.1% .125W TF TC=0+-25	28480	0699-2838
R64	0699-2834	1	RESISTOR 400 +-0.1% .125W TF TC=0+-25	28480	0699-2834
R65	0699-2847	1	RESISTOR 2K +-0.1% .125W TF TC=0+-25	28480	0699-2847
R66	0699-2823	1	RESISTOR 8K +-0.1% .125W TF TC=0+-25	28480	0699-2823

\*Indicates factory-selected value

**HP Part Number 85462-60042**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R67	0699-2827	1	RESISTOR 900 +-0.1% .125W TF TC=0+-25	28480	0699-2827
R69	0699-1503	1	RESISTOR 0 CWM	28480	0699-1503
R70	0699-1327	1	RESISTOR 1M +-1% .125W TKF TC=0+-100	28480	0699-1327
R100	0699-1375	1	RESISTOR 1.96K +-1% .125W TKF TC=0+-100	28480	0699-1375
R101	0699-2840	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0699-2840
R102	0699-1365	1	RESISTOR 75 +-1% .125W TKF TC=0+-100	28480	0699-1365
R103	0699-1398	1	RESISTOR 21.5K +-1% .125W TKF TC=0+-100	28480	0699-1398
R104	0699-1904	1	RESISTOR 1.62K +-1% .125W TKF TC=0+-100	28480	0699-1904
R105	0699-1406	1	RESISTOR 42.2K +-1% .125W TKF TC=0+-100	28480	0699-1406
R106	0699-1382	1	RESISTOR 3.83K +-1% .125W TKF TC=0+-100	28480	0699-1382
R107	0699-1453	1	RESISTOR 464K +-1% .125W TKF TC=0+-100	28480	0699-1453
R108	0699-1398	1	RESISTOR 21.5K +-1% .125W TKF TC=0+-100	28480	0699-1398
R109	0699-1408	1	RESISTOR 51.1K +-1% .125W TKF TC=0+-100	28480	0699-1408
R110	0699-1367	1	RESISTOR 90.9 +-1% .125W TKF TC=0+-100	28480	0699-1367
R112	0699-2846	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0699-2846
R113	0699-1437	1	RESISTOR 825 +-1% .125W TKF TC=0+-100	28480	0699-1437
R114	0699-2488	1	RESISTOR 100 +-0.1% .125W TF TC=0+-25	28480	0699-2488
R115	0699-1369	1	RESISTOR 1.1K +-1% .125W TKF TC=0+-100	28480	0699-1369
R116	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0699-2489
R117	0699-1390	1	RESISTOR 9.09K +-1% .125W TKF TC=0+-100	28480	0699-1390
R118	0699-1319	1	RESISTOR 12.1K +-1% .125W TKF TC=0+-100	28480	0699-1319
R119	0699-1403	1	RESISTOR 31.6K +-1% .125W TKF TC=0+-100	28480	0699-1403
R120	0699-1409	1	RESISTOR 56.2K +-1% .125W TKF TC=0+-100	28480	0699-1409
R121	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R122	0699-1362	1	RESISTOR 56.2 +-1% .125W TKF TC=0+-100	28480	0699-1362
R123	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R130	0699-1404	1	RESISTOR 34.8K +-1% .125W TKF TC=0+-100	28480	0699-1404
R131	0699-1376	1	RESISTOR 2.15K +-1% .125W TKF TC=0+-100	28480	0699-1376
R132	0699-1401	1	RESISTOR 28.7K +-1% .125W TKF TC=0+-100	28480	0699-1401
R133	0699-1438	1	RESISTOR 909 +-1% .125W TKF TC=0+-100	28480	0699-1438
R134	0699-1410	1	RESISTOR 61.9K +-1% .125W TKF TC=0+-100	28480	0699-1410
R135	0699-1407	1	RESISTOR 46.4K +-1% .125W TKF TC=0+-100	28480	0699-1407
R136	0699-1379	1	RESISTOR 2.87K +-1% .125W TKF TC=0+-100	28480	0699-1379
R137	0699-1396	1	RESISTOR 17.8K +-1% .125W TKF TC=0+-100	28480	0699-1396
R138	0699-1435	1	RESISTOR 681 +-1% .125W TKF TC=0+-100	28480	0699-1435

**HP Part Number 85462-60042**  
**Demod/QPD (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R139	0699-1394	1	RESISTOR 14.7K +-1% .125W TKF TC=0+-100	28480	0699-1394
R140	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344
R141	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344
R142	0699-1362	1	RESISTOR 56.2 +-1% .125W TKF TC=0+-100	28480	0699-1362
R143	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R144	0699-1369	1	RESISTOR 1.1K +-1% .125W TKF TC=0+-100	28480	0699-1369
R145	0699-2489	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0699-2489
R146	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R147	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R148	0699-1415	1	RESISTOR 100 +-1% .125W TKF TC=0+-100	28480	0699-1415
R149	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344
R150	0699-1344	1	RESISTOR 10 +-1% .125W TKF TC=0+-100	28480	0699-1344
R200	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
U1	1826-2171	1	IC OP AMP LOW-BIAS-H-IMPD QUAD 14 PIN	28480	1826-2171
U2	1826-1931	1	IC OSC DBL-BAL SINGLE 8 PIN PLSTC-SOIC	28480	1826-1931
U3	1826-2211	1	IC RF/IF AMPL SINGLE 8 PIN PLSTC-SOIC	28480	1826-2211
U4	1820-6391	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6391
U5	1826-1838	1	IC PWR MGT-V-REF-FXD 4.95/5.05V 8 PINS	28480	1826-1838
U6	1826-1899	1	D/A 12-BIT 28-PLCC CMOS	28480	1826-1899
U7	1826-2171	1	IC OP AMP LOW-BIAS-H-IMPD QUAD 14 PIN	28480	1826-2171
U8	1826-2171	1	IC OP AMP LOW-BIAS-H-IMPD QUAD 14 PIN	28480	1826-2171
U9	1826-1458	1	D/A 8-DGT 16-P-SOIC	28480	1826-1458
U10	1826-1963	1	IC AUDIO AMPL PWR SINGLE 8 PIN	28480	1826-1963
U12	1826-2211	1	IC RF/IF AMPL SINGLE 8 PIN PLSTC-SOIC	28480	1826-2211
U13	1826-2167	1	ANALOG MULTIPLEXER 8 CHNL 16 -P-SOIC	28480	1826-2167
U14	1820-4692	1	IC GATE CMOS/HC NAND QUAD 2-INP	28480	1820-4692
U100	1820-5752	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5752
U101	08590-80165	1	PAL-PROGRAMMED	28480	08590-80165
U102	1820-4220	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-4220
U103	1820-5752	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5752
U104	1820-5752	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5752
U105	1820-5752	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5752
U106	1820-5752	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5752
U107	1826-1952	1	ANALOG SWITCH 4 SPST 16 -P-SOIC	28480	1826-1952
U109	1826-2230	1	IC OP AMP LOW-OFS QUAD 16 PIN PLSTC-SOIC	28480	1826-2230

\*Indicates factory-selected value

**HP Part Number 85462-60042  
Demod/QPD (continued)**

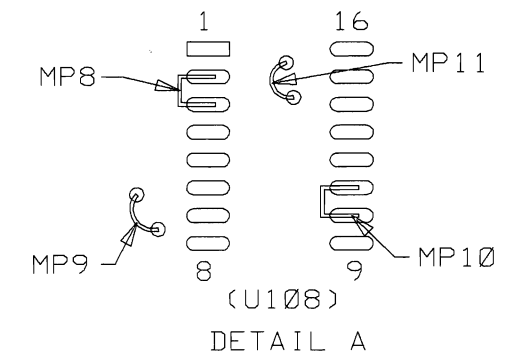
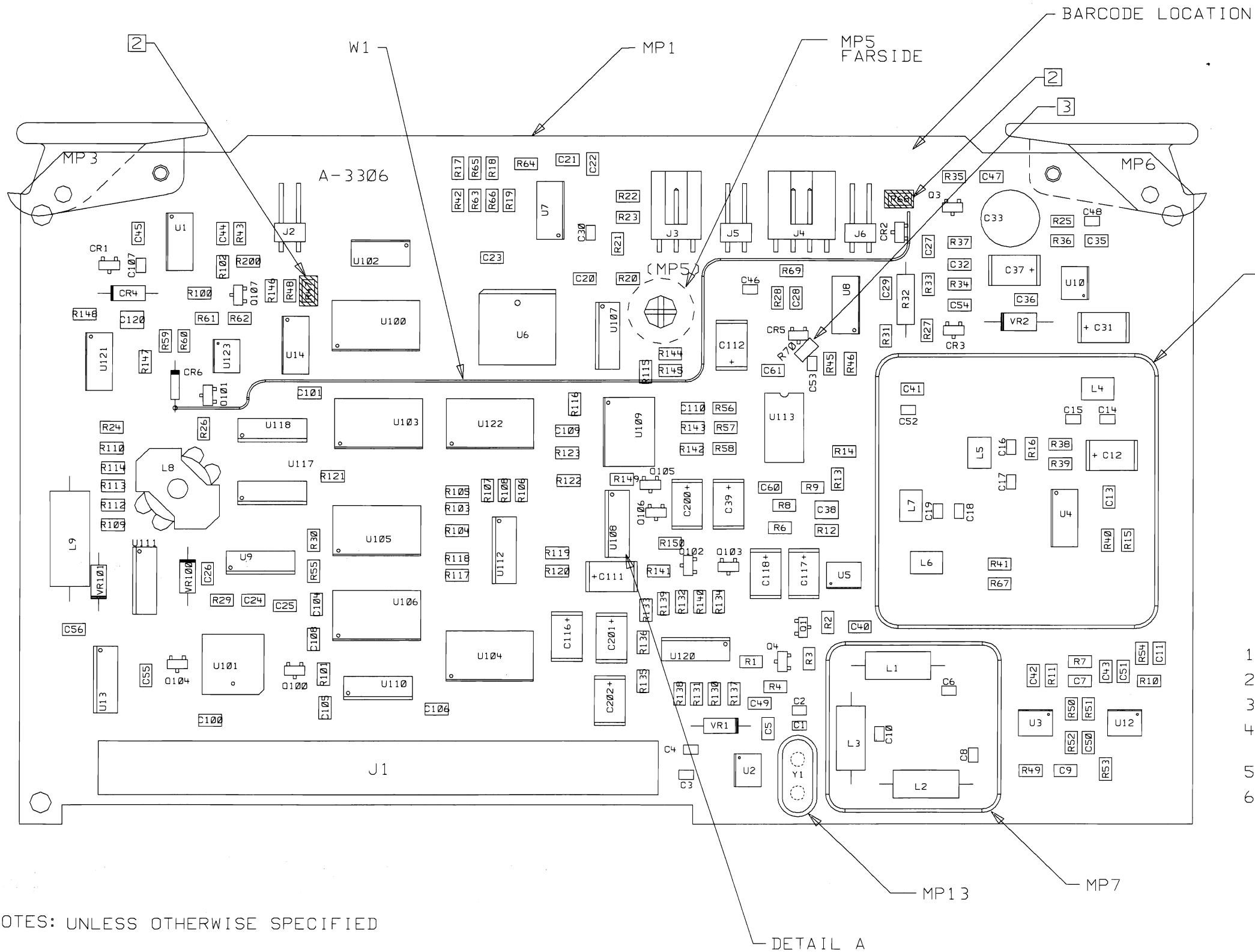
Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U110	1826-1458	1	D/A 8-DGT 16-P-SOIC	28480	1826-1458
U111	1826-1952	1	ANALOG SWITCH 4 SPST 16 -P-SOIC	28480	1826-1952
U112	1826-1952	1	ANALOG SWITCH 4 SPST 16 -P-SOIC	28480	1826-1952
U113	1826-2190	1	IC OP AMP LOW-NOISE DUAL 8 PIN DIP-C	28480	1826-2190
U117	1826-2147	1	ANALOG MULTIPLEXER 8 CHNL 16 -P-SOIC	28480	1826-2147
U118	1826-2147	1	ANALOG MULTIPLEXER 8 CHNL 16 -P-SOIC	28480	1826-2147
U120	1826-1952	1	ANALOG SWITCH 4 SPST 16 -P-SOIC	28480	1826-1952
U121	1820-4966	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG	28480	1820-4966
U122	1820-5551	1	IC DRVR CMOS/HC LINE OCTL	28480	1820-5551
U123	1826-1594	1	IC COMPARATOR GP SINGLE 8 PIN PLSTC-SOIC	28480	1826-1594
VR1	1902-0954	1	DIODE-ZNR 6.8V 5% DO-35 PD=.4W TC=+.057%	02037	SZ30035-1
VR2	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
VR100	1902-0957	1	DIODE-ZNR 1N5239B 9.1V 5% DO-35 PD=.4W	28480	1902-0957
VR101	1902-0957	1	DIODE-ZNR 1N5239B 9.1V 5% DO-35 PD=.4W	28480	1902-0957
Y1	0410-2134	1	CRYSTAL-QUARTZ 18.432	28480	0410-2134



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**SCANS  
By  
Artek Media**

5300		D-85462-60042-2	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-08711 RS		
B	CHANGE PER PCO 53-10265/ DM		



1. REMOVE U108.
2. STRIP INSULATION FROM MP8-MP11.
3. SOLDER MP8 DIRECTLY TO PINS 2 & 3.
4. SOLDER MP9 TO VIAS CONNECTED TO PINS 6 & 7.
5. SOLDER MP10 DIRECTLY TO PINS 10 & 11
6. SOLDER MP11 TO VIAS CONNECTED TO PINS 14 & 15.

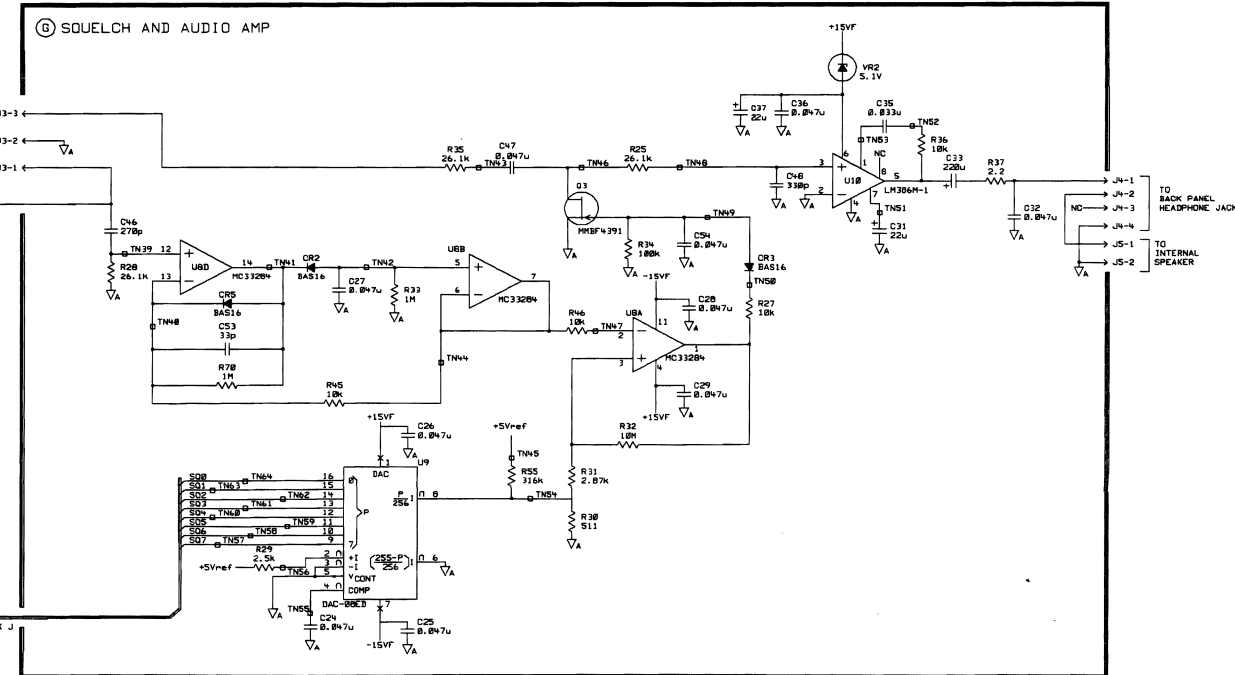
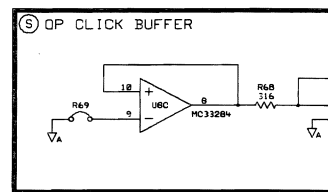
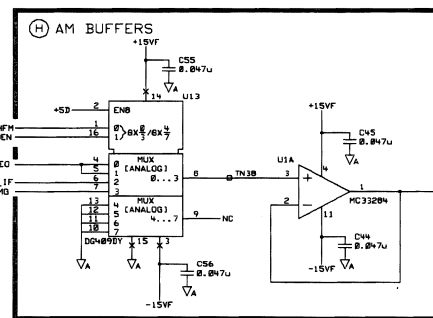
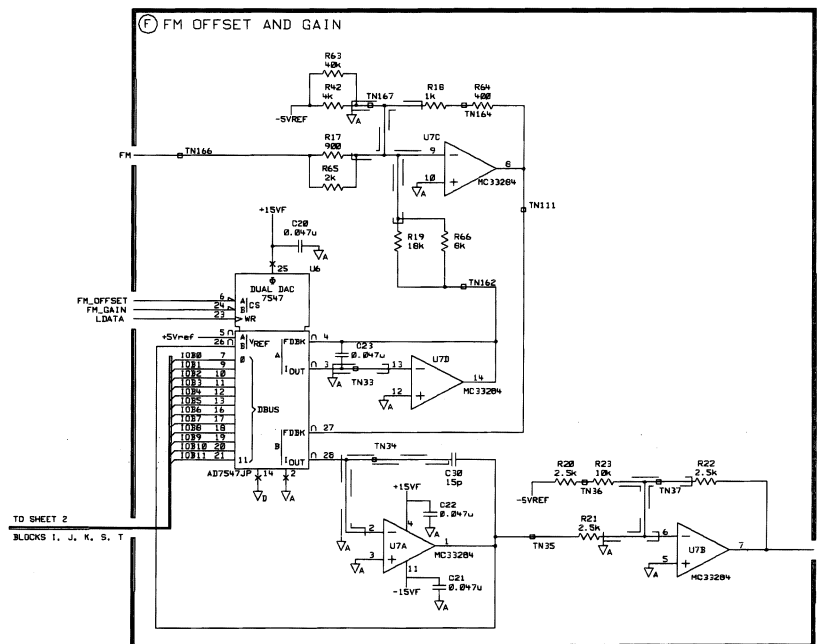
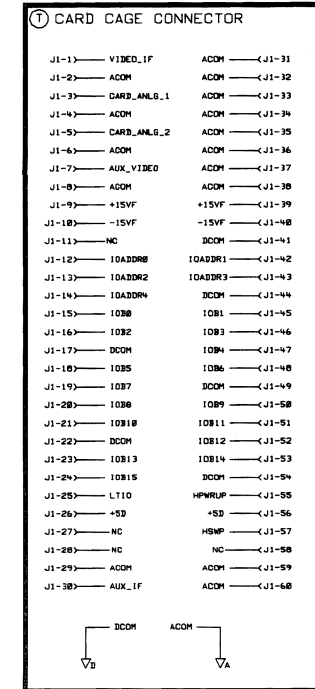
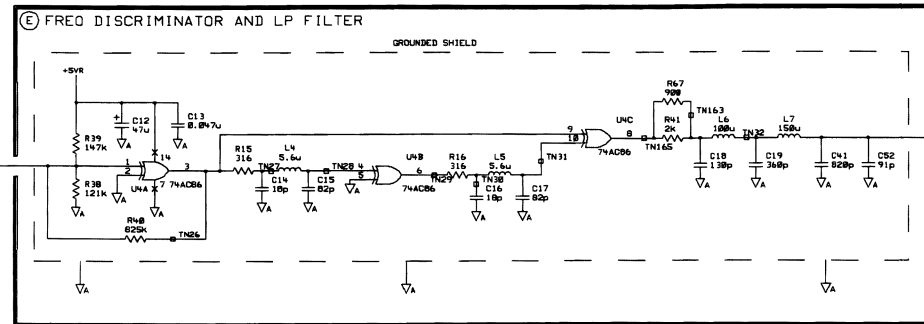
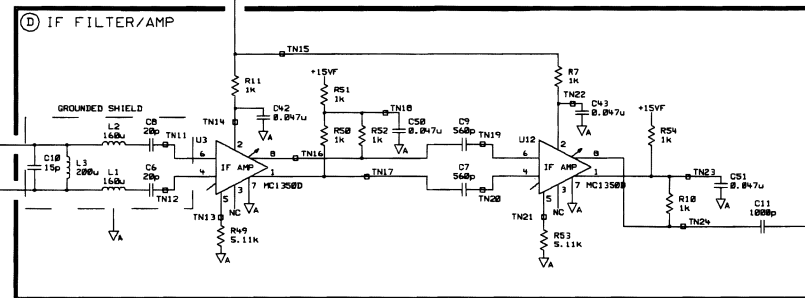
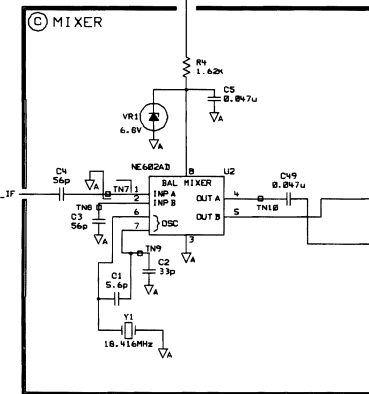
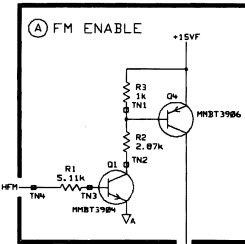
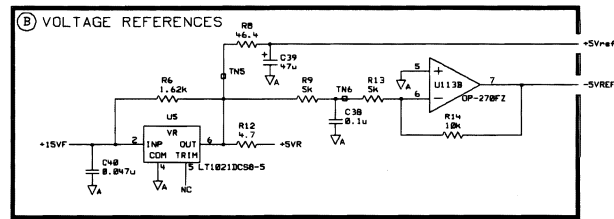
NOTES: UNLESS OTHERWISE SPECIFIED

1. USE RAW BOARD PART NUMBER 85462-20003.
2. HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY. (R47 & R68)
3. ADD SMT RESISTOR R70 ON TOP OF BOARD AND SOLDER BETWEEN TWO VIAS.

TOP SIDE

SEE 85462-60042 MATERIAL LIST

HP PROPRIETARY THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY INFORMATION THAT IS HEWLETT-PACKARD (HP) PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY HP.	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	DRAWN BY	DATE	ASSEMBLY, PWB QUASI-PEAK FM DEMOD	a1acc0+2 FILENAME SCALE NONE SHEET 1 of 1 85462-60042 PART NUMBER D-85462-60042-2
	TOLERANCES: XX.XXX ±.010 XX.XX ±.02	ENGINEER/CHECKER	DATE		
	THIRD ANGLE PROJECTION	RELEASE TO PROD.	DATE		
	DO NOT SCALE THIS DRAWING	SUPERSEDES DWG.			



NOTES:  
 HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY

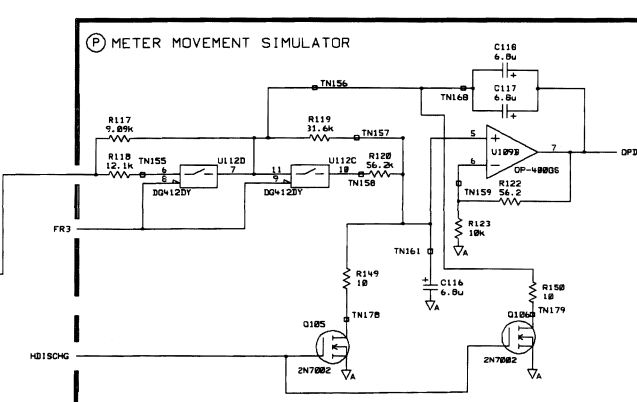
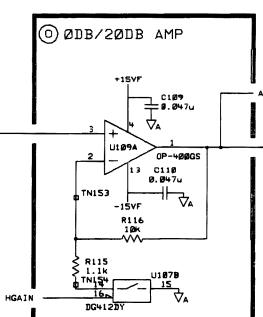
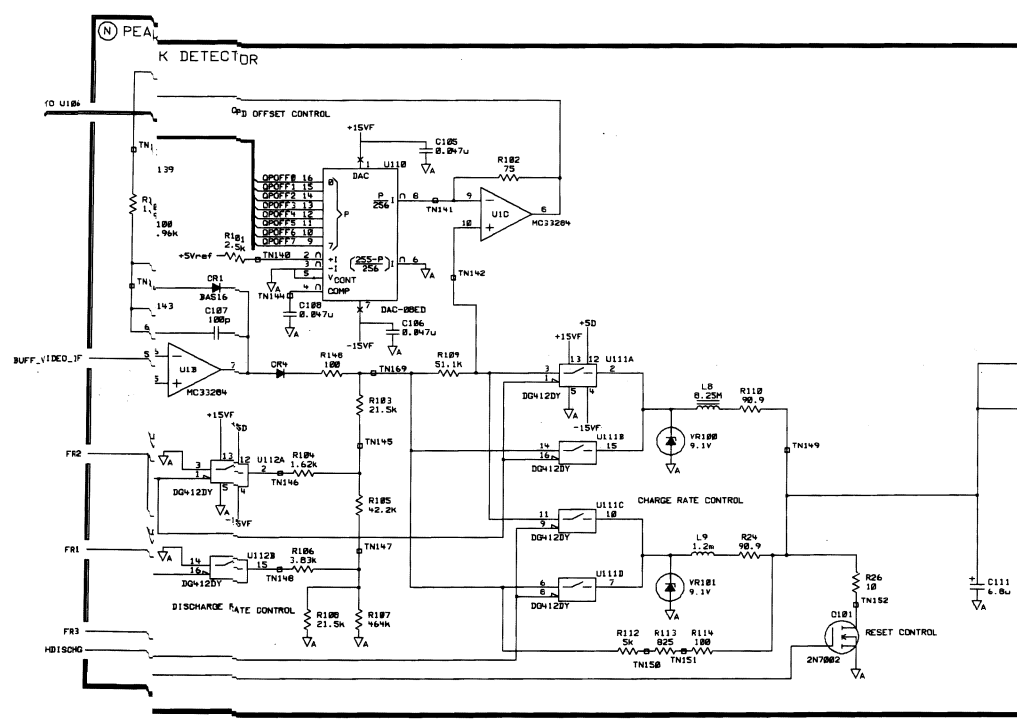
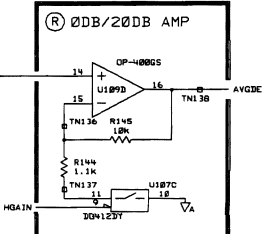
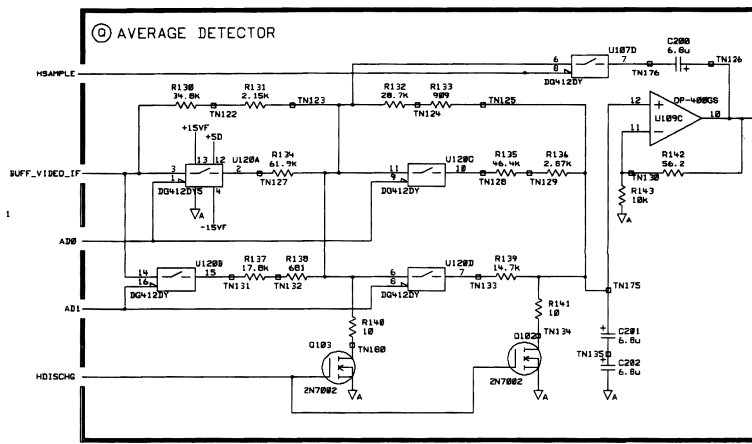
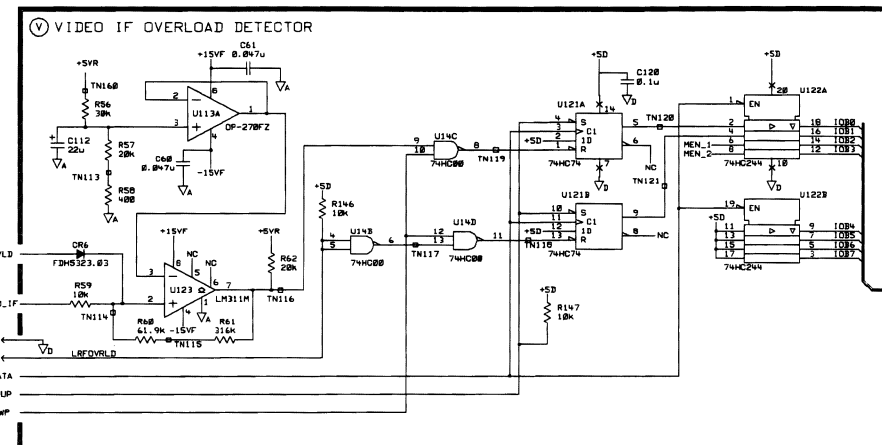
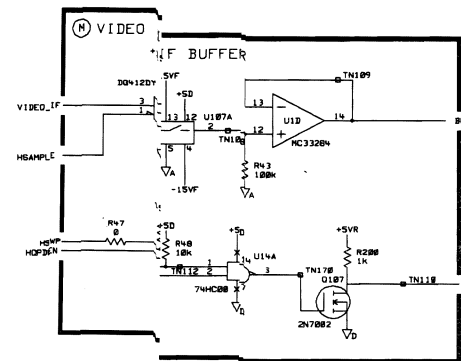
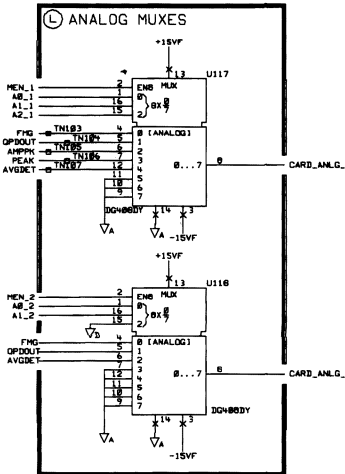
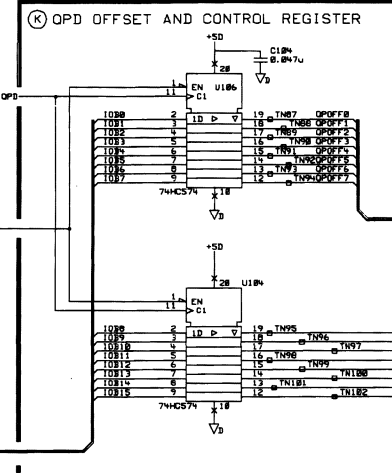
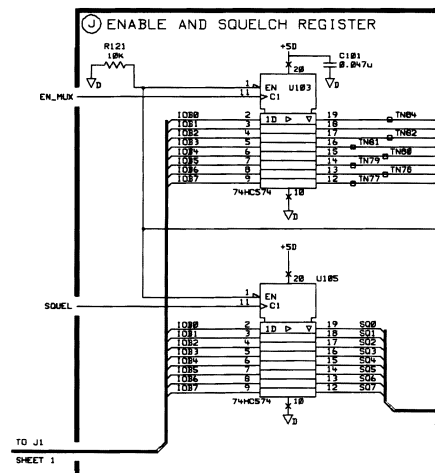
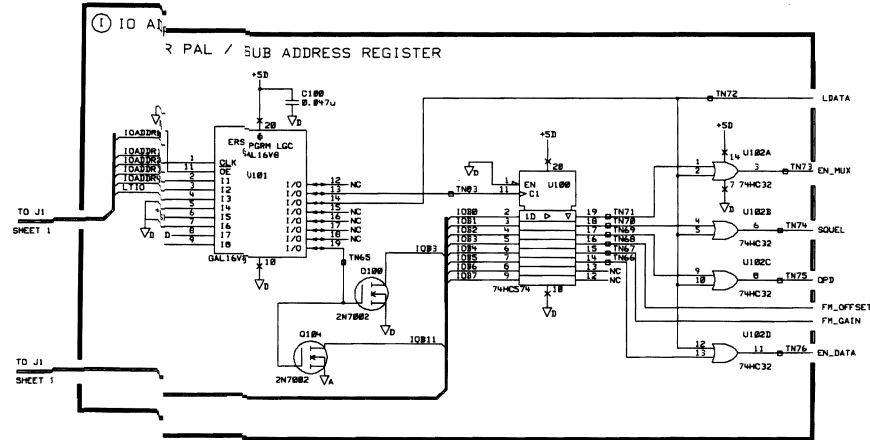
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DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ENGINEER/CHECKER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 RELEASE TO PROD.: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SUPERSEDES DWG. \_\_\_\_\_

SCHMATIC, PWA  
 QUASI-PEAK  
 FM DEMOD  
 TITLE

slacc042  
 FILENAME  
 SCALE NONE  
 SHEET 1 OF 2  
 85462-60042  
 PART NUMBER  
 D-85462-60042-1

5300 BA3306		D-85462-60042-1	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCD 53-00711 RS		02-14-95
B	CHANGE PER PCD 53-10265/ DM		02-03-97



NOTES:  
HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY.

NOTES:  
HATCHED COMPONENTS ARE NOT LOADED FOR THIS ASSEMBLY

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
QUASI-PEAK  
FM DEMOD  
TITLE

s2acc042 FILENAME	HP HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	85462-60042 PART NUMBER
D-85462-60042-1	

# **Component-Level Information Packet for 5063-0234**

## **Cellular Demod/TV**



**HP Part No. 5961-0481  
Printed in USA June 1997**

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**HP Part Number 5063-0234  
Cellular Demod/TV**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-4794	1	CAP-FXD 5.6pF +-8.92% 100 V CER C0G	28480	0160-4794
C2	0160-4807	1	CAP-FXD 33pF +-5% 100 V CER C0G	28480	0160-4807
C3	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C4	0160-4804	1	CAP-FXD 56pF +-5% 100 V CER C0G	28480	0160-4804
C5	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C6	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C7	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C8	0160-5699	1	CAP-FXD 20pF +-5% 100 V CER C0G	28480	0160-5699
C9	0160-4825	1	CAP-FXD 560pF +-5% 100 V CER C0G	28480	0160-4825
C10	0160-4789	1	CAP-FXD 15pF +-5% 100 V CER C0G	28480	0160-4789
C11	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C12	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C13	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C14	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C15	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C16	0160-4788	1	CAP-FXD 18pF +-5% 100 V CER C0G	28480	0160-4788
C17	0160-4802	1	CAP-FXD 82pF +-5% 100 V CER C0G	28480	0160-4802
C18	0160-5405	1	CAP-FXD 130pF +-5% 100 V CER C0G	28480	0160-5405
C19	0160-5404	1	CAP-FXD 360pF +-5% 100 V CER C0G	28480	0160-5404
C20	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C21	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C22	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C23	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C24	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C25	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C26	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C27	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C28	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C29	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C30	0160-4382	1	CAP-FXD 3.3pF +-7.58% 200 V CER C0G	28480	0160-4382
C31	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C32	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C33	0180-4214	1	CAP-FXD 220uF +-10% 10 V TA	28480	0180-4214
C35	0160-6588	1	CAP-FXD 0.033uF +-10% 100 V CER X7R	28480	0160-6588
C36	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422

*\*Indicates factory-selected value*

**CLIP 5961-0481 1**

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C37	0180-3848	1	CAP-FXD 33uF +-10% 16 V TA	28480	0180-3848
C38	0160-5098	1	CAP-FXD 0.22uF +-10% 50 V CER X7R	28480	0160-5098
C39	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C40	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C41	0160-6146	1	CAP-FXD 910pF +-5% 100 V CER C0G	28480	0160-6146
C42	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C43	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C44	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C45	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C46	0160-4811	1	CAP-FXD 270pF +-5% 100 V CER C0G	28480	0160-4811
C47	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C48	0160-4810	1	CAP-FXD 330pF +-5% 100 V CER C0G	28480	0160-4810
C49	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C50	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C51	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C52	0160-4371	1	CAP-FXD 680pF +-5% 100 V CER C0G	28480	0160-4371
C53	0160-4386	1	CAP-FXD 33pF +-5% 200 V CER C0G	28480	0160-4386
C54	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C100	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C101	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C103	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C104	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C105	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C109	0180-3850	1	CAP-FXD 68uF +-10% 10 V TA	28480	0180-3850
C110	0160-4835	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-4835
C111	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C112	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C113	0160-5422	1	CAP-FXD 0.047uF +-20% 50 V CER X7R	28480	0160-5422
C114	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
C115	0160-4574	1	CAP-FXD 1000pF +-10% 100 V CER X7R	28480	0160-4574
CR2	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR3	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR5	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR100	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR101	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2



**HP Part Number 5063-0234  
Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
CR102	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
CR103	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	02237	D3D2
E1	9170-1380	1	CORE-SHIELDING BEAD	28480	9170-1380
E2	9170-1380	1	CORE-SHIELDING BEAD	28480	9170-1380
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1250-0543	1	CONNECTOR-RF SMB MALE PC-W-STDFS 50-OHM	28480	1250-0543
L1	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +5%	28480	9100-1640
L2	9100-1640	1	INDUCTOR RF-CH-MLD 160uH +5%	28480	9100-1640
L3	9140-0237	1	INDUCTOR RF-CH-MLD 200uH +5%	28480	9140-0237
L4	9100-2547	1	INDUCTOR RF-CH-MLD 5.6uH +10%	28480	9100-2547
L5	9100-2547	1	INDUCTOR RF-CH-MLD 5.6uH +10%	28480	9100-2547
L6	9100-2562	1	INDUCTOR RF-CH-MLD 100uH +10%	28480	9100-2562
L7	9100-2564	1	INDUCTOR RF-CH-MLD 150uH +10%	28480	9100-2564
MP2	7100-1316	1	CAN-SQ	01932	HU 4280-.437 + TABS
MP3	0403-0630	1	EXTR-PC BD BRN NYL .062-IN-BD-THKNS	02123	91-2-BROWN-9
MP4	7100-1317	1	CAN-SQ	01932	HU 4532-.437 + TABS
MP6	0403-0621	1	EXTR-PC BD BLK NYL .062-IN-BD-THKNS	02123	91-2-BLACK-5
P3	1252-1882	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-1882
P4	1252-2195	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-2195
P5	1251-5285	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-5285
Q3	1855-0420	1	TRANSISTOR J-FET 2N4391 N-CHAN D-MODE	02237	
Q100	1855-0555	1	TRANSISTOR MOSFET N-CHAN E-MODE SI	28480	1855-0555
R1	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R2	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R3	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R4	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R5	0698-7188	1	RESISTOR 10 +-1% .05W TF TC=0+-100	28480	0698-7188
R6	0698-7241	1	RESISTOR 1.62K +-1% .05W TF TC=0+-100	28480	0698-7241
R7	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R8	0698-7204	1	RESISTOR 46.4 +-1% .05W TF TC=0+-100	28480	0698-7204
R9	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320
R10	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R11	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R12	0698-8820	1	RESISTOR 4.64 +-1% .125W TF TC=0+-100	28480	0698-8820
R13	0698-6320	1	RESISTOR 5K +-0.1% .125W TF TC=0+-25	28480	0698-6320

*\*Indicates factory-selected value*

**CLIP 5961-0481 3**

**HP Part Number 5063-0234**  
**Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R14	0698-6360	1	RESISTOR 10K +-0.1% .125W TF TC=0+-25	28480	0698-6360
R15	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R16	0698-3444	1	RESISTOR 316 +-1% .125W TF TC=0+-100	28480	0698-3444
R17	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R18	0699-0692	1	RESISTOR 1.4K +-0.1% .125W TF TC=0+-25	28480	0699-0692
R19	0698-6963	1	RESISTOR 5.55K +-0.1% .125W TF TC=0+-25	28480	0698-6963
R20	0698-6533	1	RESISTOR 12.5K +-0.1% .125W TF TC=0+-25	28480	0698-6533
R21	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R22	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R25	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R27	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R28	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R29	0698-6631	1	RESISTOR 2.5K +-0.1% .125W TF TC=0+-25	28480	0698-6631
R30	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R31	0698-7247	1	RESISTOR 2.87K +-1% .05W TF TC=0+-100	28480	0698-7247
R32	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R33	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
R34	0698-7284	1	RESISTOR 100K +-1% .05W TF TC=0+-100	28480	0698-7284
R35	0698-7270	1	RESISTOR 26.1K +-1% .05W TF TC=0+-100	28480	0698-7270
R36	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R37	0698-8816	1	RESISTOR 2.15 +-1% .125W TF TC=0+-100	28480	0698-8816
R38	0698-7286	1	RESISTOR 121K +-1% .05W TF TC=0+-100	28480	0698-7286
R39	0698-7288	1	RESISTOR 147K +-1% .05W TF TC=0+-100	28480	0698-7288
R40	0698-8826	1	RESISTOR 825K +-1% .125W TF TC=0+-100	28480	0698-8826
R41	0699-2124	1	RESISTOR 619 +-0.1% .125W TF TC=0+-25	28480	0699-2124
R42	0699-0400	1	RESISTOR 3.6K +-0.1% .125W TF TC=0+-25	28480	0699-0400
R43	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R44	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R45	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R46	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R47	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
R48	0698-7229	1	RESISTOR 511 +-1% .05W TF TC=0+-100	28480	0698-7229
R49	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R50	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R51	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236

**HP Part Number 5063-0234  
Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
R52	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R53	0698-7253	1	RESISTOR 5.11K +-1% .05W TF TC=0+-100	28480	0698-7253
R54	0698-7236	1	RESISTOR 1K +-1% .05W TF TC=0+-100	28480	0698-7236
R55	0698-3458	1	RESISTOR 348K +-1% .125W TF TC=0+-100	28480	0698-3458
R200	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R203	0698-8825	1	RESISTOR 681K +-1% .125W TF TC=0+-100	28480	0698-8825
R204	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R205	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R206	0698-7244	1	RESISTOR 2.15K +-1% .05W TF TC=0+-100	28480	0698-7244
R207	0698-7260	1	RESISTOR 10K +-1% .05W TF TC=0+-100	28480	0698-7260
U1	1826-0547	1	IC OP AMP LOW-BIAS-H-IMPED DUAL 8 PIN	28480	1826-0547
U2	1826-1913	1	IC OSC DBL-BAL 8 PIN DIP-P	28480	1826-1913
U3	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U4	1820-6408	1	IC GATE CMOS/AC EXCL-OR QUAD 2-INP	28480	1820-6408
U5	1826-1431	1	IC PWR MGT-V-REF-FXD 4.9975/5.0025V 8	28480	1826-1431
U6	1826-1933	1	D/A 12-BIT 24-PLASTIC CMOS	28480	1826-1933
U7	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U8	1826-1943	1	IC OP AMP HS QUAD 14 PIN DIP-C	28480	1826-1943
U9	1820-1934	1	D/A 8-BIT 16-CERDIP BPLR	28480	1820-1934
U10	1826-0682	1	IC AUDIO AMPL PWR 8 PIN DIP-P	28480	1826-0682
U11	1826-2026	1	ANALOG SWITCH SPST 8 -DIP-P	28480	1826-2026
U12	1826-0159	1	IC RF/IF AMPL IF 8 PIN DIP-P	28480	1826-0159
U100	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U101	08590-80105	1	PAL-PRGM U1	28480	08590-80105
U102	1820-3298	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-3298
U103	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U105	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U106	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U107	1820-4152	1	IC FF CMOS/HCT D-TYPE POS-EDGE-TRIG COM	28480	1820-4152
U108	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U109	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U110	1820-3205	1	IC CNTR CMOS/HC BIN UP/DOWN SYNCHRO	28480	1820-3205
U111	1820-3672	1	IC MUXR/DATA-SEL CMOS/HC 4-TO-1-LINE	28480	1820-3672
U112	1820-3185	1	IC SCHMITT-TRIG CMOS/HC INV HEX	28480	1820-3185
U113	1826-1942	1	IC MISC 8 PIN DIP-P	28480	1826-1942

*\*Indicates factory-selected value*

**CLIP 5961-0481 5**

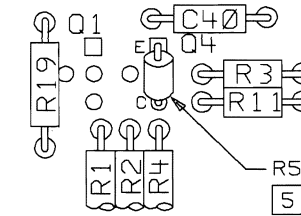
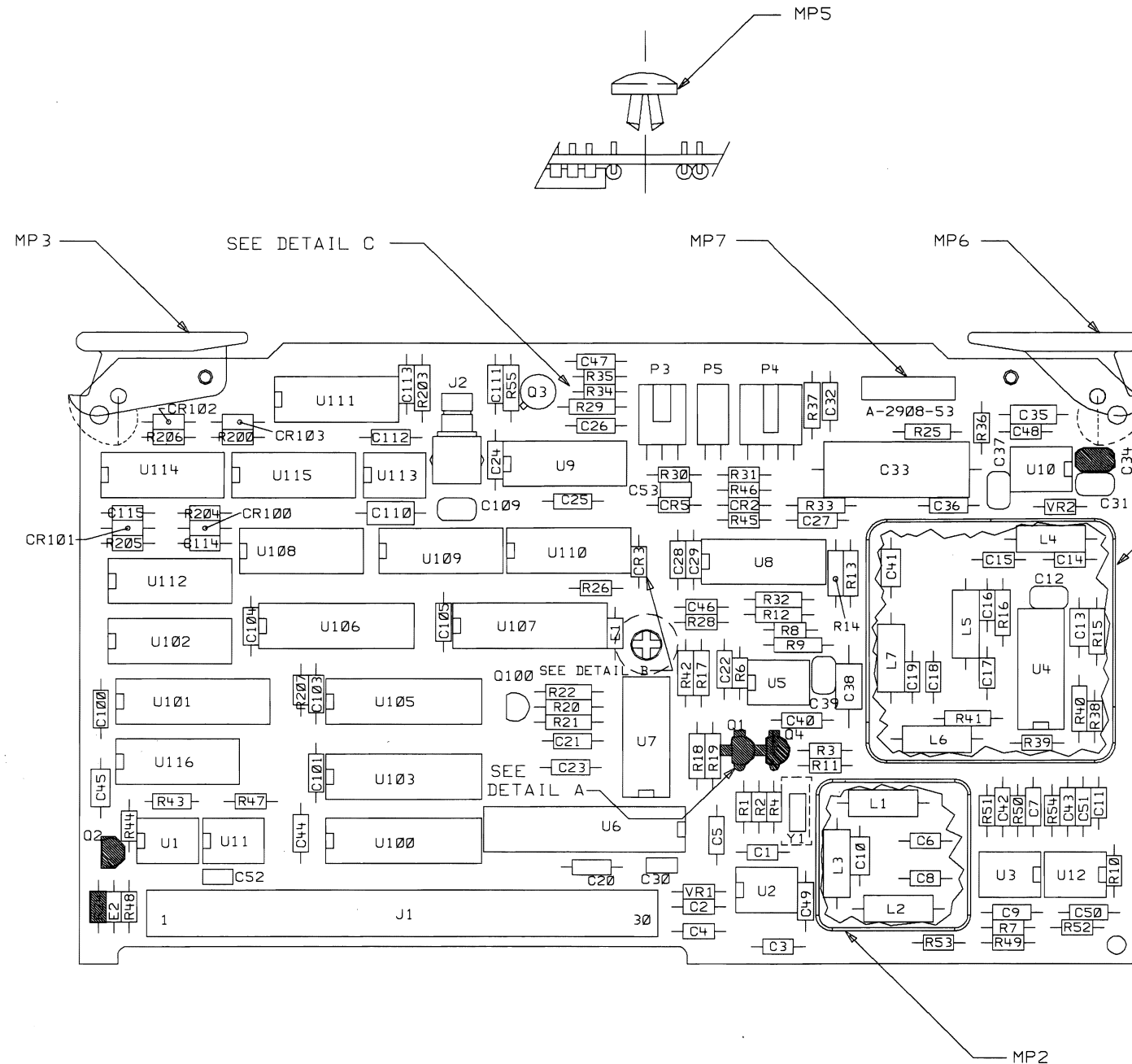
**HP Part Number 5063-0234  
Cellular Demod/TV (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U114	1820-3173	1	IC FF CMOS/HC J-K NEG-EDGE-TRIG	28480	1820-3173
U115	1820-3183	1	IC GATE CMOS/HC NAND QUAD 2-INP	02237	MM74HC03N
U116	1826-0609	1	ANALOG MULTIPLEXER 8 CHNL 16 -CERDIP	28480	1826-0609
VR1	1902-0048	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
VR2	1902-0579	1	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
Y1	0410-2134	1	CRYSTAL-QUARTZ 18.432	28480	0410-2134

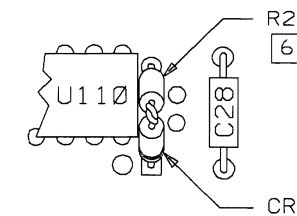
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By  
Artek Media**

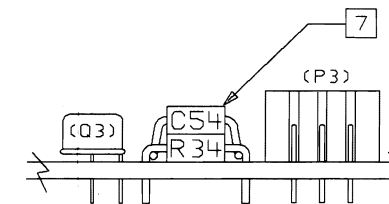
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SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07285/GH		



DETAIL A  
SCALE: NONE



DETAIL B  
SCALE: NONE



DETAIL C  
SCALE: NONE

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN INCHES.
2. MAXIMUM COMPONENT HEIGHT .450
3. MAXIMUM LEAD TRIM LENGTH .065
4. DO NOT LOAD Q2, R24, R26 AND C34.
- 5 DO NOT LOAD Q1 AND Q4. INSTALL R5 IN PLACE OF Q4 AS SHOWN IN DETAIL A.
- 6 ADD R27 IN SERIES WITH CR3. SEE DETAIL B.
- 7 ADD C54 PIGGY-BACK TO R34. SEE DETAIL C.

RAW BOARD NUMBER 5021-8673  
SEE 5063-0234 MATERIAL LIST

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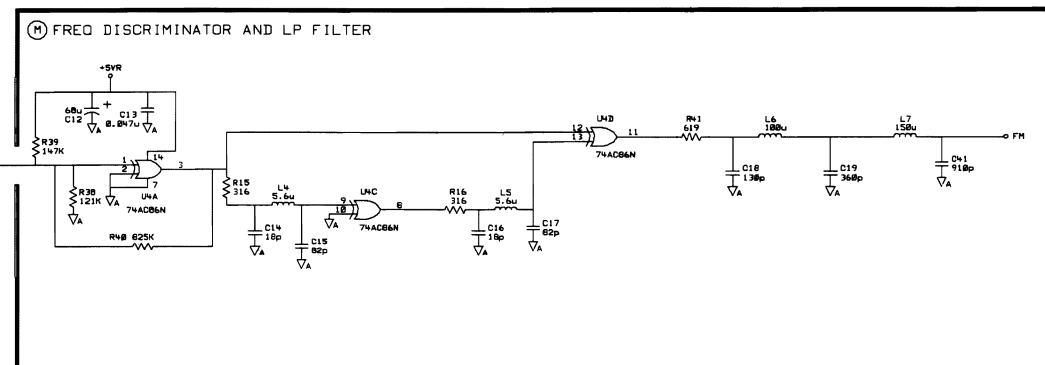
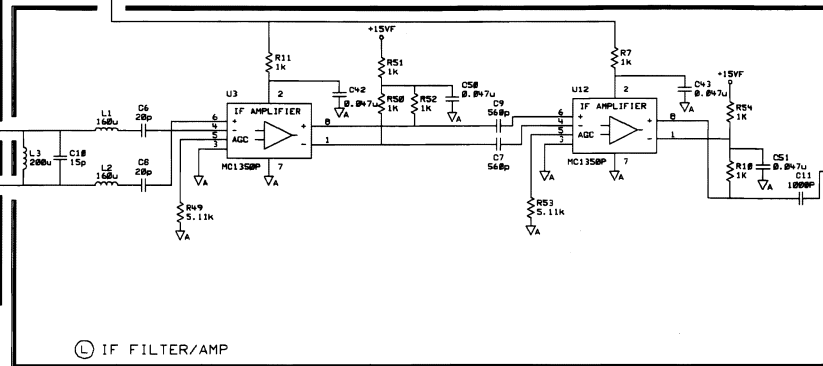
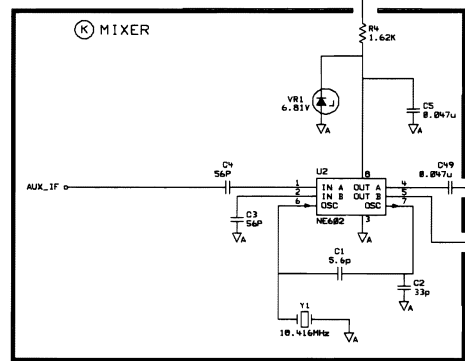
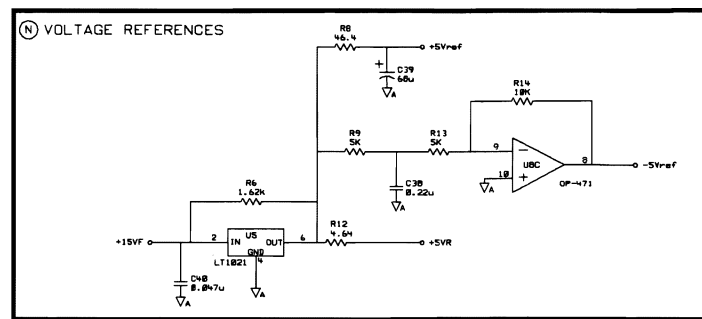
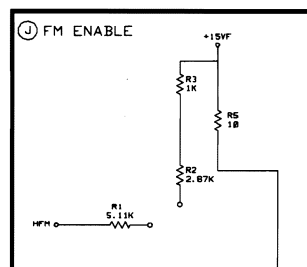
UNLESS OTHERWISE SPECIFIED,  
DIMENSIONS ARE IN INCHES.  
TOLERANCES: XX.XXX ±.010  
                  XX.XX ±.02  
THIRD ANGLE  
PROJECTION  
DO NOT SCALE THIS DRAWING

DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
CELLULAR  
DEMOD/TV

almad234 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	5063-0234 PART NUMBER
D-5063-0234-2	

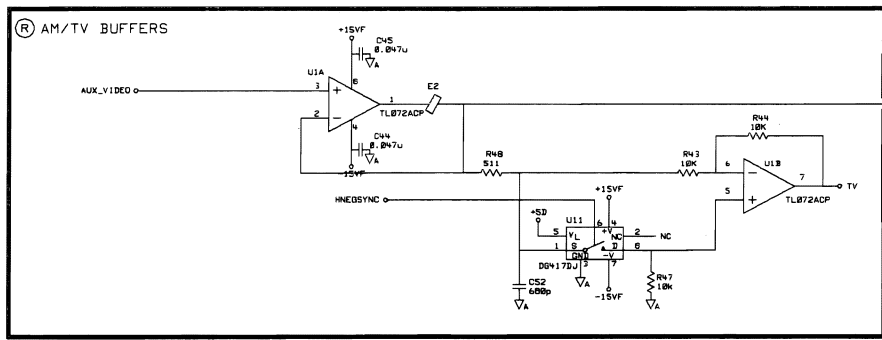
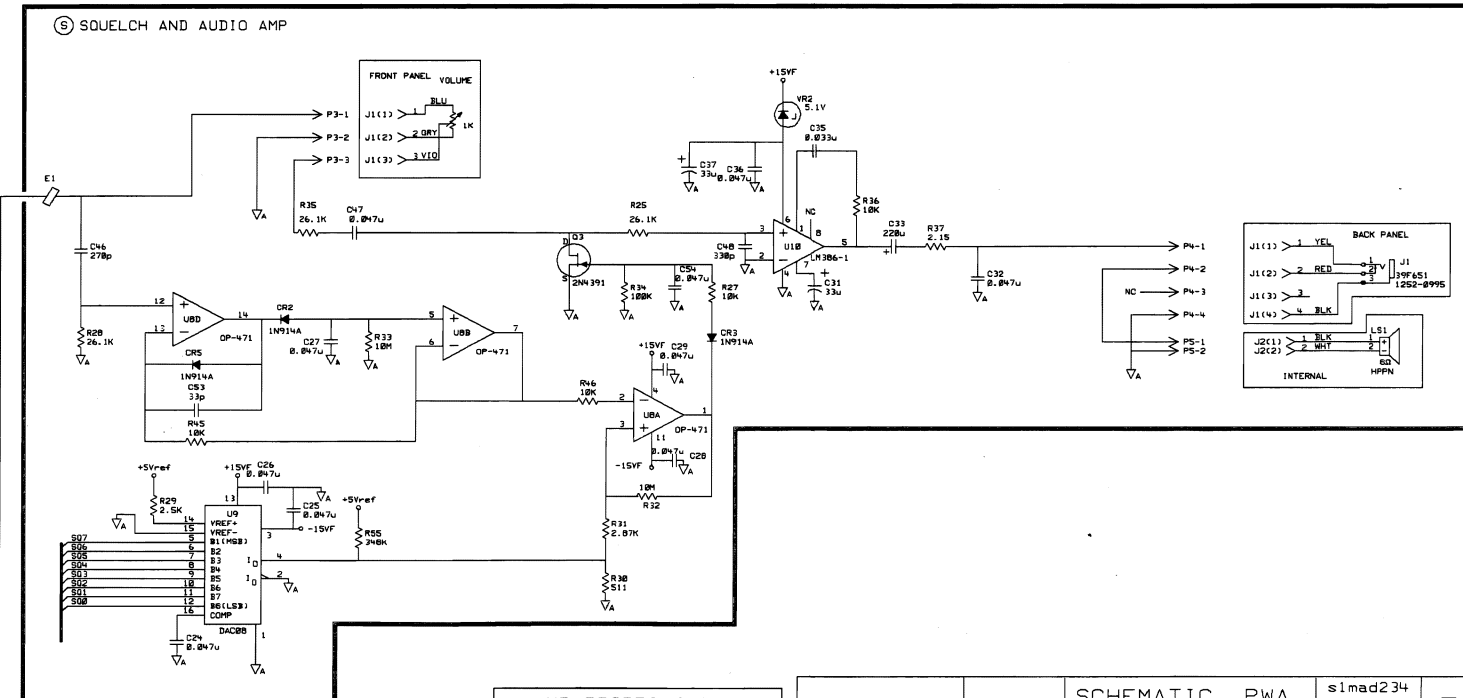
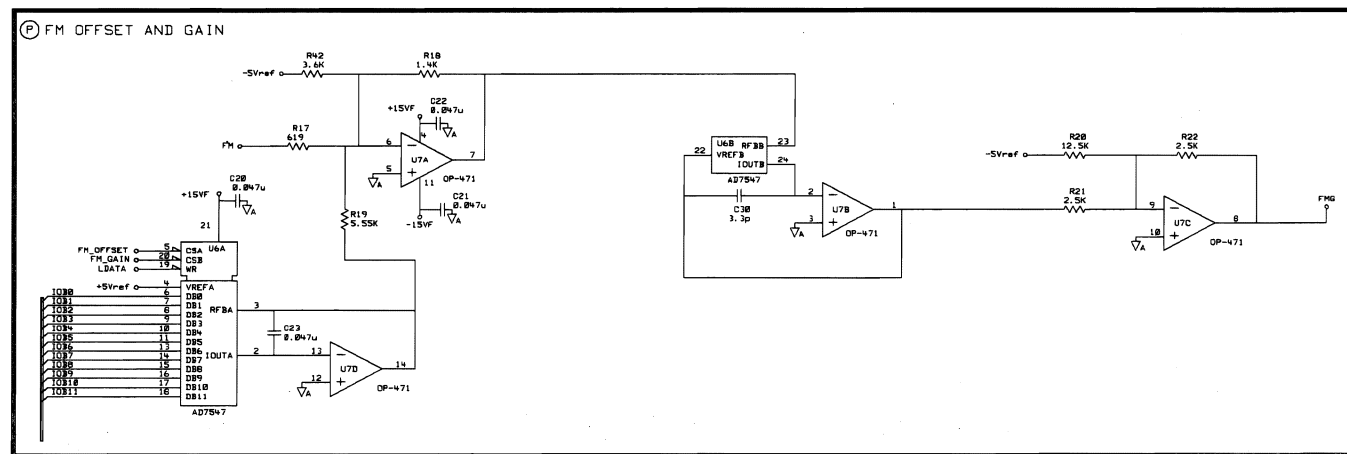
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SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07285 EW		02-05-92
B	REV'D PER PCO 53-08742 /GH		09-21-95



NOTES:

1. REFERENCE DESIGNATORS WITHIN THIS ASSEMBLY ARE ABBREVIATED. PREFIX ABBREVIATION WITH ASSEMBLY NUMBER FOR COMPLETE REFERENCE DESIGNATOR.
2. UNLESS OTHERWISE INDICATED: RESISTANCE IN OHMS (Ω); CAPACITANCE IN MICROFARADS (μF); INDUCTANCE IN MICRORHENRIES (μH)
3. MNEMONIC TABLE

MNEMONIC	DESCRIPTION



NOT USED  
R3, R23, R24, R26  
CR1, CR2, CR6

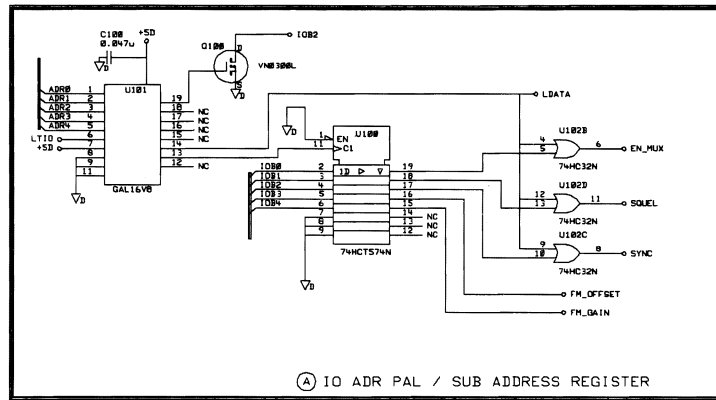
LAST USED  
CS4 U12  
RS5 CR5  
L7 VR2

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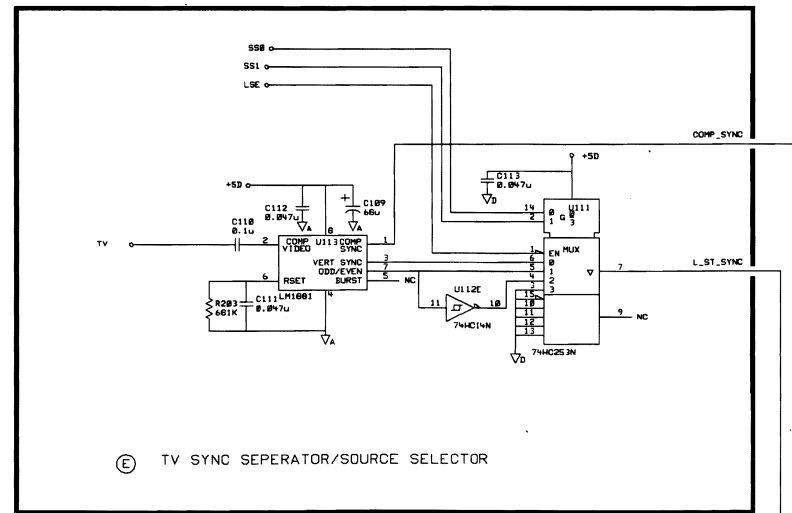
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ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SHEMATIC, PWA CELLULAR DEMOD/TV	s1mad234 FILENAME
	SCALE NONE
	SHEET 1 OF 2
	5063-0234 PART NUMBER
	D-5063-0234-1

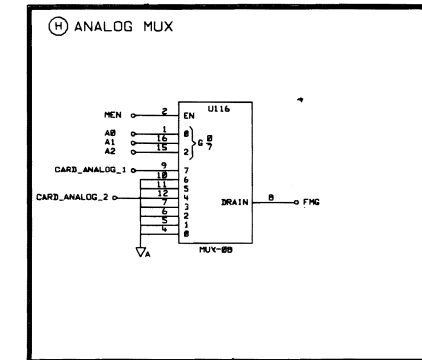
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SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-07285 EW		02-05-92
B	REV'D PER PCO 53-08742 /GH		09-21-95



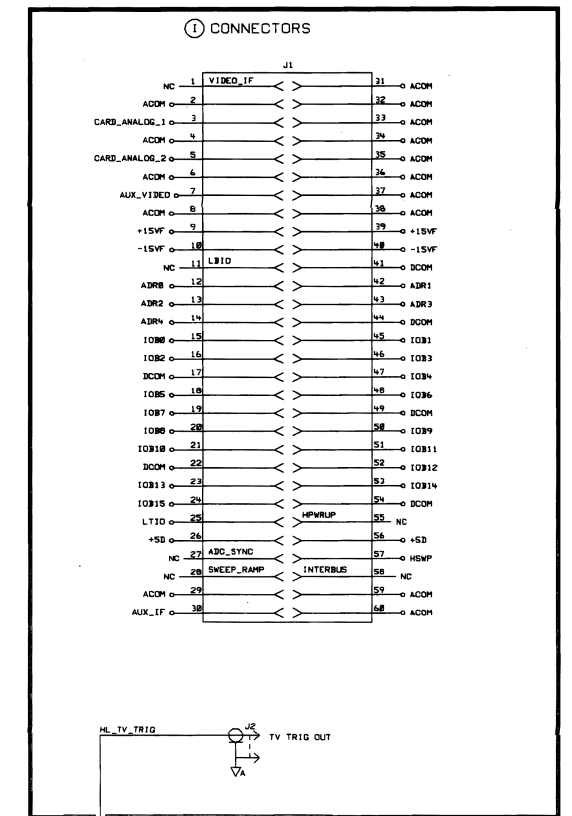
(A) IO ADR PAL / SUB ADDRESS REGISTER



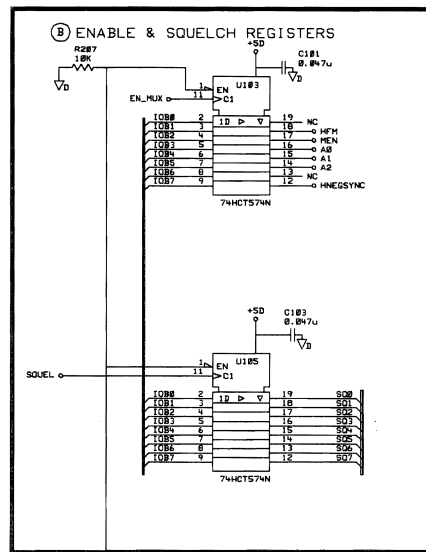
(E) TV SYNC SEPARATOR/SOURCE SELECTOR



(H) ANALOG MUX

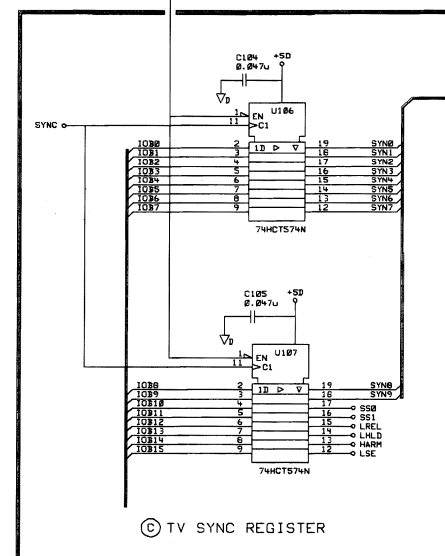


(I) CONNECTORS

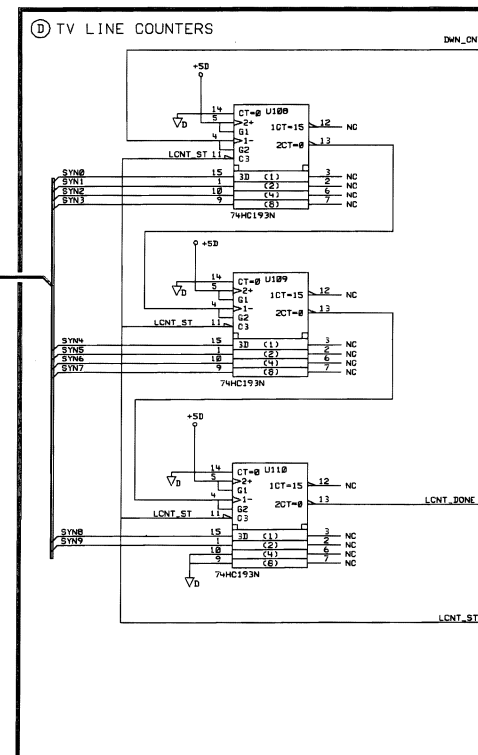


(B) ENABLE & SQUELCH REGISTERS

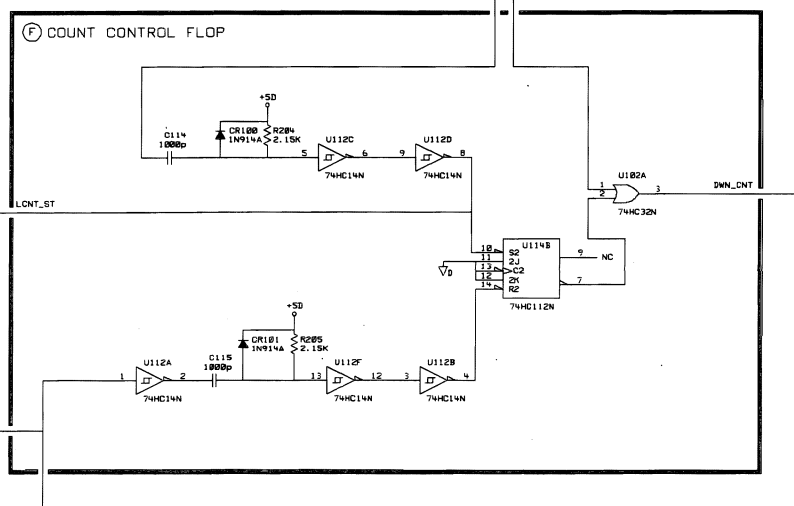
# TV LINE TRIGGER



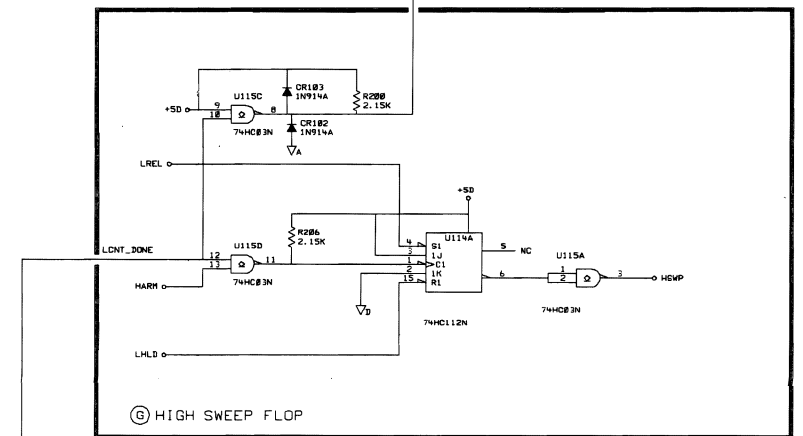
(C) TV SYNC REGISTER



(D) TV LINE COUNTERS



(F) COUNT CONTROL FLOP



(G) HIGH SWEEP FLOP

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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHMATIC, PWA  
CELLULAR  
DEMOM/TV  
TITLE

slmad234 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 2 OF 2	5063-0234 PART NUMBER
	D-5063-0234-1



# **Component-Level Information Packet for 08590-60374**

## **TV Display**



**HP Part No. 08590-90258  
Printed in USA August 1995**

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**HP Part Number 08590-60374**  
**TV Display**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
C1	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C2	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C6	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C7	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C8	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C9	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C10	0160-6097	1	CAP-FXD 560pF +-5% 50 V CER COG	28480	0160-6097
C11	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C12	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C13	0180-3831	1	CAP-FXD 10uF +-10% 35 V TA	28480	0180-3831
C14	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C15	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C16	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C17	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C18	0160-6734	1	CAP-FXD 0.047uF +-10% 50 V CER X7R	28480	0160-6734
C19	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C20	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C21	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C22	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C23	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C24	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C25	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C26	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C27	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C28	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C29	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C30	0180-3847	1	CAP-FXD 22uF +-10% 25 V TA	28480	0180-3847
C31	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C32	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C33	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
C34	0160-6497	1	CAP-FXD 0.1uF +-10% 50 V CER X7R	28480	0160-6497
J1	1251-8912	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1251-8912
J2	1252-0937	1	CONN-POST TYPE .100-PIN-SPCG-MTG-END	28480	1252-0937
L1	9140-1113	1	INDUCTOR 10uH +-5% 3.4W-mmX4.8LG-mm Q=50	28480	9140-1113
L2	9140-1113	1	INDUCTOR 10uH +-5% 3.4W-mmX4.8LG-mm Q=50	28480	9140-1113

\*Indicates factory-selected value

CLIP 08590-90258 1

**HP Part Number 08590-60374**  
**TV Display (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
L3	9140-1121	1	INDUCTOR 100uH +-5% 3.4W-mmX4.8LG-mm	28480	9140-1121
MP3	0403-0629	1	EXTR-PC BD BLU NYL .062-IN-BD-THKNS	02123	91-2-BLUE-2
MP4	0403-0629	1	EXTR-PC BD BLU NYL .062-IN-BD-THKNS	02123	91-2-BLUE-2
Q1	1855-0734	1	TRANSISTOR MOSFET 2N7002 N-CHAN E-MODE	28480	1855-0734
R1	0699-1375	1	RESISTOR 1.96K +-1% .125W TKF TC=0+-100	28480	0699-1375
R2	0699-1375	1	RESISTOR 1.96K +-1% .125W TKF TC=0+-100	28480	0699-1375
R3	0699-1375	1	RESISTOR 1.96K +-1% .125W TKF TC=0+-100	28480	0699-1375
R4	0699-1436	1	RESISTOR 750 +-1% .125W TKF TC=0+-100	28480	0699-1436
R5	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R6	0699-1422	1	RESISTOR 196 +-1% .125W TKF TC=0+-100	28480	0699-1422
R7	0699-1422	1	RESISTOR 196 +-1% .125W TKF TC=0+-100	28480	0699-1422
R12	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R13	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R14	0699-1377	1	RESISTOR 2.37K +-1% .125W TKF TC=0+-100	28480	0699-1377
R15	0699-1357	1	RESISTOR 34.8 +-1% .125W TKF TC=0+-100	28480	0699-1357
R16	0699-1370	1	RESISTOR 1.21K +-1% .125W TKF TC=0+-100	28480	0699-1370
R17	0699-1433	1	RESISTOR 562 +-1% .125W TKF TC=0+-100	28480	0699-1433
R18	0699-1318	1	RESISTOR 1K +-1% .125W TKF TC=0+-100	28480	0699-1318
R19	0699-1421	1	RESISTOR 178 +-1% .125W TKF TC=0+-100	28480	0699-1421
R20	0699-1370	1	RESISTOR 1.21K +-1% .125W TKF TC=0+-100	28480	0699-1370
R21	0699-1436	1	RESISTOR 750 +-1% .125W TKF TC=0+-100	28480	0699-1436
R22	0699-1436	1	RESISTOR 750 +-1% .125W TKF TC=0+-100	28480	0699-1436
R23	0699-1433	1	RESISTOR 562 +-1% .125W TKF TC=0+-100	28480	0699-1433
R24	0699-1371	1	RESISTOR 1.33K +-1% .125W TKF TC=0+-100	28480	0699-1371
R26	0699-1458	1	RESISTOR 681K +-1% .125W TKF TC=0+-100	28480	0699-1458
R27	0699-1427	1	RESISTOR 316 +-1% .125W TKF TC=0+-100	28480	0699-1427
R28	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R29	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R30	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
R31	0699-1391	1	RESISTOR 10K +-1% .125W TKF TC=0+-100	28480	0699-1391
S1	3101-3147	1	SWITCH-DIP SURF-MT-SL SPST 0.05A 6VDC	28480	3101-3147
U1	1826-1739	1	IC OP AMP WB SINGLE 8 PIN PLSTC-SOIC	28480	1826-1739
U3	1826-1941	1	ANALOG SWITCH 4 SPST 16 -P-SOIC	28480	1826-1941
U4	1820-5220	1	IC INV CMOS/HC HEX	28480	1820-5220
U5	1826-2858	1	IC MISC WB QUAD 14 PIN DIP-P	28480	1826-2858

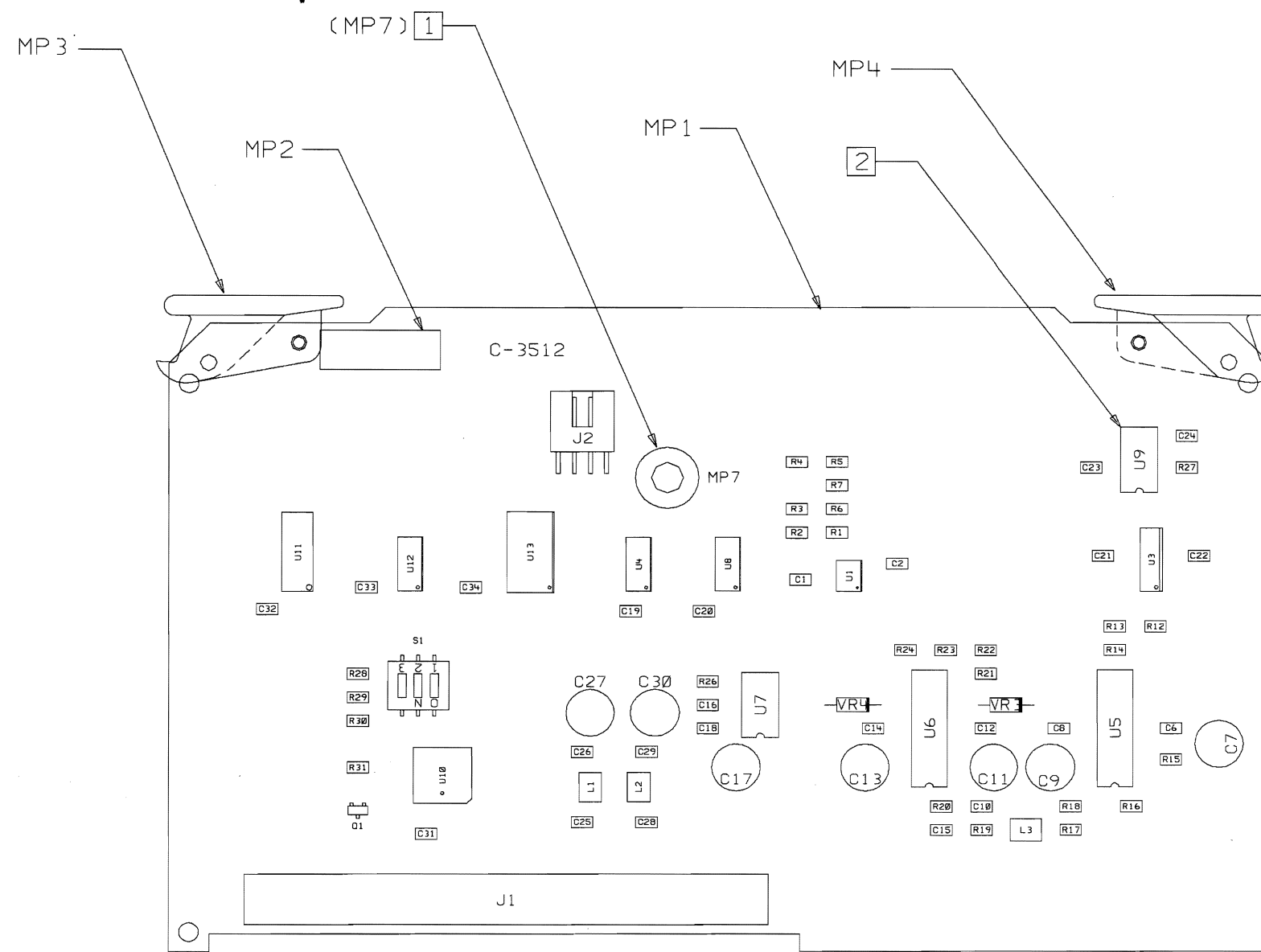
**HP Part Number 08590-60374  
TV Display (continued)**

Reference Designator	HP Part Number	Qty	Description	Mfr Code	Mfr Part Number
U6	1826-2858	1	IC MISC WB QUAD 14 PIN DIP-P	28480	1826-2858
U7	1826-1942	1	IC MISC 8 PIN DIP-P	28480	1826-1942
U8	1820-5788	1	IC SW CMOS/HC ANALOG QUAD	28480	1820-5788
U9	1826-3150	1	IC MISC WB 8 PIN DIP-P	28480	1826-3150
U10	5181-5094	1	PAL-PROGRAMMED	28480	5181-5094
U11	1820-6240	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-6240
U12	1820-4220	1	IC GATE CMOS/HC OR QUAD 2-INP	28480	1820-4220
U13	1820-5808	1	IC FF CMOS/HC D-TYPE POS-EDGE-TRIG COM	28480	1820-5808
VR3	1902-0953	1	DIODE-ZNR 6.2V 5% DO-35 PD=.4W TC=+.053%	28480	1902-0953
VR4	1902-0953	1	DIODE-ZNR 6.2V 5% DO-35 PD=.4W TC=+.053%	28480	1902-0953

\*Indicates factory-selected value

CLIP 08590-90258 3

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED PER PCO 53-08486		06-28-95



NOTES: UNLESS OTHER SPECIFIED

1 MP7 LOADED ON BOTTOM SIDE OF BOARD

FOR MATERIAL LIST SEE 08590-60374

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UNLESS OTHERWISE SPECIFIED,  
 DIMENSIONS ARE IN INCHES.

TOLERANCES: XX.XXX ±.010  
 XX.XX ±.02

THIRD ANGLE  
 PROJECTION

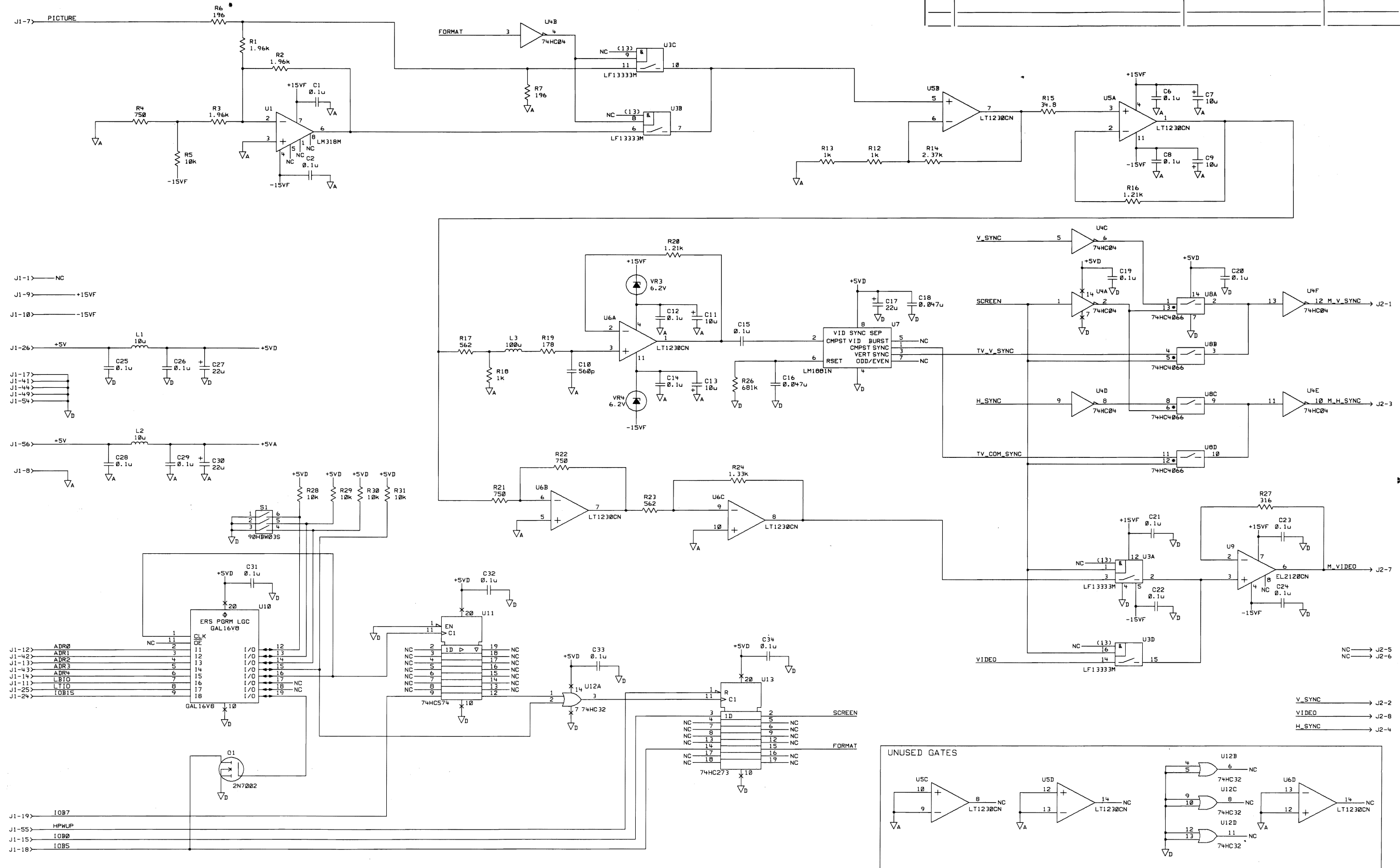
Scans by ArtekMedia => 2010

DRAWN BY	06-28-95 DATE
ENGINEER/CHECKER	06-28-95 DATE
RELEASE TO PROD.	06-28-95 DATE
SUPERSEDES DWG.	

ASSEMBLY, PWB  
 T.V. PICTURE

a1abb374 FILENAME	HEWLETT PACKARD
SCALE NONE	
SHEET 1 OF 1	08590-60374 PART NUMBER
C-08590-60374-2	

5300	AC3512	C-08590-60374-1
SYM	REVISIONS	APPROVED
A	AS ISSUED PER PCO 53-08486	DATE



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DRAWN BY	DATE
ENGINEER/CHECKER	DATE
RELEASE TO PROD.	DATE
SUPERSEDES DWG.	

SCHEMATIC, PWA  
 T.V. PICTURE

TITLE

slabb374	FILENAME	HP HEWLETT PACKARD
NONE	SCALE	
1 OF 1	SHEET	08590-60374
	PART NUMBER	C-08590-60374-1